

J84
129.1
1952-54

ANNUAL REPORT
of the DIRECTOR
NATIONAL PARK SERVICE
to the
SECRETARY OF THE INTERIOR

Reprint from the

**ANNUAL REPORT OF THE SECRETARY
OF THE INTERIOR**

For the Fiscal Year Ended June 30, 1952

Fiscal Year Ended June 30

1952





NATIONAL PARK SERVICE

Conrad L. Wirth, Director



Fiscal year 1952 in the far-flung National Park System was a good deal like any one of the preceding 6 years since the end of World War II. Use of the parks expanded again; nearly 37,000,000 visitors were recorded. Old and young still thrill at the sight of a geyser, a glacier, a bear cub in its native haunts; the Liberty Bell, the home of an early president, a battlefield, or the ruined village of prehistoric Americans. In providing for their enjoyment of these diverse sights, the National Park Service has also discharged its primary duty of keeping the 173 areas comprising the National Park System essentially unimpaired.

Though the intrinsic worth of the parks and monuments is intact, fiscal 1952 was no banner year. In the national park system, "tight" budgets for both development and operation have prevailed now for more than a decade and although the visitor total has nearly doubled during this period, too many facilities for them remain unimproved—inadequate, obsolete, uneconomical of operation, maintained in usable condition only with great difficulty.

Patch-on-Patch Poor Policy.—From the standpoint of good public business, the long-deficient budgets are a deeply serious matter. Be it a scenic highway or a park building, or a private sidewalk or a home, patch upon patch is poor and wasteful practice. Scarcely less objectionable is service to the public which, because of inadequate personnel, has to be diluted to the point that few visitors are able to realize from it the satisfaction it is intended to provide. Certainly the immediate result of inadequate financial support is to subtract seriously from the people's enjoyment of the parks and contribute to the gradual destruction of the areas. Through it, we are risking the loss of Americans' pride in the great places of their country. The scenic and historic parks are roots of patriotism; they nourish our love of country, understanding of our past, belief in our future. At no time in these trying years, amidst a changing world, have we so needed, and so greatly used,

the places that provide this nourishment of body and mind and spirit. It is the universal instinct of man to return to Nature for refreshment, and to bolster his beliefs by looking back upon his own history.

Here in America, these deep-seated longings are answered particularly in the national parks, and answered on as high a plane as obtains for any people anywhere in the world. Their value is unmeasurable in kilowatt hours, in board feet, or in dollars and cents. We only know—and we know it surely—by faith in our own civilization, that whatever America puts into her national parks is a sound and reasonable investment, even if there were no cash return at all. Yet this social return is supplemented, and importantly, by an economic return as well. In many parts of the United States, travel is a major economic factor, and one greatly motivated by the existence of such travel objectives as the parks. Travel patterns are often complex, and the inducements to travel hard to segregate; but there is no leader of this third largest industry who would not shudder to think of a situation in which the parks would pass out of existence. Though nothing should be permitted to impair their inherent values, there should be full recognition of their importance as business assets and of the need of providing both plant and personnel for their effective and satisfactory functioning. They create a return to Federal and local governments and support many businesses important in the local and regional economy.

With the concurrence and encouragement of the Department, the Service has continued to plead the case for strengthened budgets; we believe that a steadily growing number in Congress appreciate that the maintenance needs of the parks are real, not imaginary or exaggerated; that public health, safety, education, and morale justify a stand against continued deferment of improvements.

The National Park Trust Fund.—Concurrently with its effort to obtain appropriations commensurate with needs, the Service is launching efforts to build up the National Park Trust Fund, authorized in 1936 to receive and expend donated funds. The limited resources of this fund have proved most helpful on a number of occasions. A larger fund, not supplanting, but supplementing, regular appropriations, could contribute importantly to the furtherance of useful projects to which donors would give and from which they would receive lasting satisfactions. We are hopeful, and confident, that it can be greatly enlarged.

To Round Out the System.—There has long been wide agreement that the national system of parks, monuments, and historic sites should be limited to areas of national significance. However, careful appraisal of the present system leads to the conclusion that certain additions remain to be accomplished before it can be considered appropriately inclusive. There are historic places of large meaning not yet

included; there are types of characteristic and distinguished American landscape not represented. Of the latter group, the most conspicuous type still lacking is extensive seashore, uncluttered by shoddy development and, to as great a degree as possible, in natural condition. After several years, during which the prospect of establishment seemed to be receding farther and farther, the Cape Hatteras National Seashore Recreational Area, as a result of a donation from private funds, and the equally important contributions of the State of North Carolina, appears now to be within the grasp of the American people.

The Service feels a primary responsibility for suggesting practical ways and means of rounding out the system before areas desirable for inclusion in it are modified or impaired beyond redemption or before developments make acquisition prohibitively expensive. Three advances during the past year marked real progress in this direction. One was the completion of four of the five groups of condemnation suits, involving Everglades National Park lands, to which the United States had acquired title the previous year by declaration of taking. Another was the acquisition of famed Linville Falls in North Carolina for addition to the Blue Ridge Parkway—one more of the gifts to the National Park System made by John D. Rockefeller, Jr. The third was the designation of the Virgin Islands National Historic Site, embracing the most distinguished and historic portion of the town of Christiansted, on St. Croix Island.

Directors Change; Policies Are Unchanged.—During the calendar year 1951, the National Park Service had three directors. When Newton B. Drury's resignation became effective on April 1, he was succeeded by Arthur E. Demaray, close associate of each of the preceding directors. When he retired in December after more than 48 years of Federal service—more than 34 of them as an employee of the National Park Service—he was succeeded by the present director. Accompanying these changes came questions as to whether they would mean changes in the policies of the Service. As a matter of fact, National Park Service policies are not expressions of the personal viewpoint of individual directors. They have evolved, become more definite and more firmly established over a period which began more than 80 years ago, with the establishment of Yellowstone National Park, 44 years before there was a National Park Service. Farsighted citizens and citizen groups have shared in the task of shaping them. There has never been a time when any threat to the integrity of the National Park System would produce stronger opposition than today; never a time when any tendency to weaken those well-established policies, either by legislation or administrative decision, would be more widely and forthrightly criticized. It is this strong and informed citizen support which is, and will remain, their greatest safeguard.

Related Activities.—The fields of park and recreation planning, and of scenic, scientific, and historic preservation, are extensive, touching every level of government. Several land agencies in this and other Departments are involved. The emergency work of the Civilian Conservation Corps during the thirties pointed up the need for broad, but not compulsive, coordination of park and recreation activities, though it did not mark the beginning of it. That dates back to the earliest years of the Service when its first Director, Stephen T. Mather, and his assistant, Horace M. Albright, later Director, and the Department helped to foster the closely allied State park movement. The Park, Parkway and Recreational Area Study Act of 1936 was a logical development of all the Service's previous relationships with other park and recreational agencies; the studies conducted in accordance with its authority further revealed the inescapable interrelationships of all agencies working in the park and recreation field. More recently, the vast programs, under which great river basins, usually involving several States, are being studied and proper use of their diverse natural resources is being determined, continue to show the interdependence of one phase of land utilization upon another.

We are convinced that the cooperative work in which the Service has participated has needed to be done. It came into the work naturally; it has an obligation to follow through. There is every reason to expect that it will grow healthily, while it broadens and strengthens the whole field of park conservation.

Mississippi River Parkway Survey.—The collaboration of the Bureau of Public Roads, in the Department of Commerce, and of the National Park Service, in the Department of the Interior—each staffed and experienced in planning in a certain field—in making, and reporting on, the 2-year Mississippi River Parkway survey, is an example of cooperative and effective effort of which we are proud. Working with 10 river States and with a 100-man citizens' planning group, the two agencies evolved a new, practical and economical way to apply parkway principles along the 2,000-mile course of the river. It would produce not a national parkway to be administered by the Service but an interstate development under the well-established Federal-aid-to-highways program. The plan contemplates that the Service would provide consultation service to the Bureau of Public Roads, turnabout of the agreement under which the Bureau, for nearly three decades, has provided basic engineering in the development of major roads within the National Park System.

Dinosaur.—The proposal to construct dams at Echo Park and Split Mountain in Dinosaur National Monument continued to engage attention during the year.

The Service continues to hope that agreement on alternative plans can be reached which will leave this extraordinary possession of the American people in essentially unmodified condition.

Before embarking on a detailed account of the year's events, this seems a suitable place at which to quote a profound statement by Allen Sproul, president of the Federal Reserve Bank of New York, in *Yosemite Nature Notes*:

In my present work I am chief executive officer of an institution with over \$12 billion of assets, with over \$5 billion of gold belonging to foreign governments and central banks in its custody, and with many more billions of unissued currency and securities in its vaults. There are about 4,000 people to help me with the job. I had something more precious in my care when I was the "lone ranger" stationed at the Mariposa Grove of Giant Sequoias in 1914. In my ignorance, I felt little weight of responsibility then, but I feel it now when I go back to the grove to worship in the shade of the giant Sequoias. I thank God they are still there.

THREATS TO KINGS CANYON AND GLACIER

In February, notice was published of the applications of the city of Los Angeles to appropriate water from the South and Middle Forks of the Kings River for power production. These include both the Tehipite and Cedar Grove sites, just outside of Kings Canyon National Park, and several sites within it. They have been protested by the Secretary of the Interior, the Sierra Club, the Fresno Chamber of Commerce, and others.

In March, the Secretary requested the National Park Service and the Bureau of Reclamation to arrange for a joint survey of the natural resource development possibilities of the Middle and South Forks of the Kings, outside the park. An agreement on the study was reached early in April, and it will be conducted as soon as necessary appropriations are available. In common with many conservation organizations, the Service hopes that alternatives may be found for the Cedar Grove and Tehipite sites and that the latter may ultimately be included in Kings Canyon National Park.

A new threat to Glacier National Park came in the proposal of the Anaconda Copper Mining Co. to build an aluminum reduction plant near the south border of the park. There seems to be no question that noxious fumes from such a plant could affect seriously the plant and animal life of the park. Through former Director Horace M. Albright, who represented the Service in discussions of the situation with company officials, it is learned that the company has chosen one of the least objectionable sites and that it intends to install protective devices.

IMPROVEMENTS

With a backlog of needed projects amounting to \$140,000,000 for buildings and utilities, \$201,000,000 for roads and trails, and \$202,413,000 for parkways, the Service received \$1,295,000 for buildings and utilities, \$2,500,000 for roads and trails, and \$5,825,000 for parkways. Of the parkways funds, \$4,200,000 were for the Baltimore-Washington Parkway, of highest priority in the defense road network of the Nation's Capital.

Two factors prevented using even the limited construction funds to fullest effectiveness. They had to be distributed in relatively small amounts to a large number of areas, with resultant costly supervision and construction. The low personnel ceiling permitted few day-labor projects, yet it was difficult and occasionally impossible to get contractors to bid on small jobs. The short construction season in many areas is a further handicap.

Communications.—FM radio surveys were completed at Sequoia, Kings Canyon, Yosemite, and Shenandoah National Parks, and Dinosaur National Monument. Yellowstone is next on the list for such a survey. FM systems were completed at Acadia and Big Bend National Parks and Organ Pipe Cactus and Death Valley National Monuments. The system at Glacier National Park will be completed this fall.

Standard radio specifications prepared by the Service are now being widely used by other Department bureaus. Other agencies also use its certification of radio equipment; increasingly other bureaus of the Department ask its help in preparing bids for radio equipment.

Unfortunately, personnel ceilings have prevented the hiring of personnel to maintain the Service's radio systems, which are only as good as the maintenance they receive. Some means of employing qualified maintenance forces must be found if these systems are to function satisfactorily.

Good progress is being made in interesting telephone and power companies in supplying commercial service to field areas. Outstanding was the successful negotiation with the Rural Electrification Administration to supply power at Big Bend National Park. We are convinced that in many areas the Service can obtain commercial power and telephone services more cheaply than they can be provided with its own facilities.

Park Roads.—Though there are 15,000,000 more automobiles on the highways of the United States than before World War II, that fact is not reflected in appropriations for roads in the National Park System. Of \$201,000,000 needed for road development, 87 percent would be for replacement projects, to enable the System to meet the demands of modern traffic.

Contracts for replacement roads, 55.5 miles in length, and costing \$2,192,571, were completed in the 1952 fiscal year. These included both 1950 and 1951 projects such as the Clingmans Dome and Newfound Gap roads in Great Smoky Mountains, the Northeast Entrance Road at Badlands, the North Entrance and Boquillas Roads at Big Bend, the Zion-Bryce Approach Road, Route 1 at Lassen Volcanic, the Kings Canyon Road, and the Heart of the Hills Road in Olympic. Road replacements under construction at the end of the year represent a cost of \$4,988,392 for 114.2 miles of road. Started in previous years, they were 77 percent completed. Two projects—for Yellowstone and Olympic—with \$586,000 programmed, remain to be placed under contract.

Road and Trail Maintenance.—There are 6,242 miles of roads, including parkways, and 7,924 miles of trail in the National Park System requiring annual maintenance. The Service maintains roads at extreme elevations and under extreme climatic conditions from 280 feet below sea level in Death Valley to 13,000 feet above in the Rockies and the Sierras; from the hot and arid regions of the desert, to the swamps of Everglades National Park, and to the rigorous winters of Alaska and the Rocky Mountain region. This great variety of conditions results in abnormal demands for maintenance and abnormal maintenance costs. Annual snowfall of 50 to 60 feet in such places as Crater Lake is common. About \$400,000, or 10 percent of maintenance funds, is spent annually to remove snow, with no permanent benefit to road conditions. Less than 4 percent is spent for professional services.

During the past year, 125 miles of roads and 210 miles of trails have been added to the systems in the parks and monuments. These additions have resulted from completion of construction projects, transfer of roads in newly acquired areas, adjustment of mileages in existing areas, and transfer of State and county roads within areas administered by the Service. As of June 30, 1949, capital investment in the highways of the system was \$191,000,000; the maintenance estimate for 1953 is 2.2 percent of that investment.

Parkways.—The only funds appropriated for parkways in 1952 were earmarked for the Baltimore-Washington, Suitland, and Natchez Trace Parkways. Thus further progress was, for the time, eliminated from the five other authorized parkways—Blue Ridge, Chesapeake and Ohio Canal, Colonial, Foothills, and George Washington Memorial. All of these are badly in need of work to be done in order to protect the Federal investment already made and to provide for the public safety.

On the Washington-Baltimore Parkway, 3.5 miles of grading and two grade separation structures were completed at a cost of \$1,281,456.

Construction contracts on 12 other projects were in progress, to cost \$3,660,631. Because of the importance of this parkway in the National Capital's defense highway system, work on it is being pushed as rapidly as possible.

On the Blue Ridge Parkway, with the completion of paving on a 42-mile unit between the James River and U S 60 near Roanoke, a highly scenic section through the Peaks of Otter area was opened to traffic. Completion of 6.1 miles of grading and surfacing connects U S 19 at Soco Gap, N. C., with the newly constructed Heintooga Ridge road in Great Smoky Mountains National Park. The two projects cost \$974,146.50. The paving, now in progress, from the Mount Mitchell entrance road to U S 70 near Asheville, will open up the spectacular Craggy Gardens rhododendron area. On this and on the grading of another 5 miles near Asheville, \$940,958.50 is being expended.

Under a \$120,202.50 contract, paving of the Colonial Parkway through the Williamsburg Tunnel and construction of a 0.9-mile connection to Tazewell Hall Avenue in Williamsburg have been started. Right-of-way for the remaining 12-mile section between Jamestown and Williamsburg has been acquired.

With the completion of paving of 19.4 miles connecting with Mississippi Highway 12, a 64-mile section of the Natchez Trace Parkway was opened to traffic, extending to U S 51, near Ridgeland. Grading of 8.2 miles in Tennessee was also completed. The cost of these two projects was \$1,211,267.

A contract was awarded at the end of the year for paving a 4.9-mile second lane of the Suitland Parkway between South Capitol Street, District of Columbia, and Silver Hill Road, Maryland. The remaining 4.1 miles of this defense route between the District of Columbia and Andrews Air Base is still to be paved.

No lands have yet been provided by the State of Tennessee for the Foothills Parkway; therefore, no work has been done on the main route. However, construction is well under way on two bridges and a culvert on the proposed south-bound lane of the Gatlinburg-Banner Bridge section of the Gatlinburg-Caney Creek spur connection to the main line of the parkway.

With no funds, and additional right-of-way needed, no work has been started on the Chesapeake and Ohio Canal Parkway. Several local groups have voiced opposition to its construction.

Major Building Construction.—Despite labor shortages and restrictive controls on certain materials and equipment, the year saw good progress, within the strict limits of available funds, in the Service's authorized building construction program. In the critical building area of the New York City vicinity, contracts amounting to

\$160,000 were let for restoration work on Castle Clinton; \$25,000 was spent on rehabilitation of the Zenger Memorial room at Federal Hall Memorial; a contract for \$157,000 was awarded for construction of six residences and related work, for employees at Statue of Liberty National Monument. The west wharf and the new concessions and public service building were completed and put in service; the old concessions building and comfort station were demolished. When the two old duplex residences are demolished and the old dock piling removed, the major work of rehabilitating Bedloe's Island will have been completed.

In addition to building construction projects mentioned elsewhere, some of the most important undertakings are a new Lake Mead National Recreation Area administration building in Boulder City, now building; the contact station at Everglades National Park; contact station and utility building at Ridgeland, on the Natchez Trace Parkway; and much-needed residences at Lake Mead and Millerton Lake, Grand Canyon, Big Bend, Zion, Everglades, Mount McKinley, Glacier, Great Smoky Mountains, Adams Mansion, and a number of national monuments. The construction program includes other structures such as comfort stations, contact stations, utility buildings, fire lookouts, etc.

Soil and Moisture Conservation.—Approximately 3,900,000 acres of the lands administered by the Service have been badly eroded or seriously depleted by erosion and prior misuse. The "problem acreage" needs protective or corrective work which, it is estimated, would cost about \$4,317,450. Of this, more than \$1,685,000 is needed for immediate correction alone of areas having severe and critical erosion.

The 1952 appropriation carried \$91,200 for this work.

A happier picture is presented with respect to lands leased for agricultural use along the parkways and in historical areas, primarily as a maintenance measure. The conservation requirements of permits issued in Region One result in an annual investment in liming, fertilization, and other soil and moisture conservation practices by permittees of more than \$250,000. Merely to maintain the 13,000 acres as open fields would cost the Service \$80,000 a year for mowing alone.

HISTORY AND ARCHEOLOGY

The American appetite for history where it was made and for the sites of prehistoric interest shows no signs of abatement. During the travel year that ended last September 30, 13,893,398 visitors were recorded in the historic and prehistoric areas administered by the Service. Despite their numbers, it is estimated that approximately 70 per-

cent of them received personal assistance from Service personnel in gaining insight into their country's history.

Encroachment and Boundary Problems.—The irregular and inadequate boundaries of many of the historic areas administered by the Service constantly pose problems of protecting them from undesirable encroachments. These seem to have been especially numerous during the past year.

In the case of a particularly significant small piece of land adjoining Colonial National Historical Park, Va., refusal of the owners to sell and preparation by one of them to build a house, compelled the Service to resort to condemnation, a step strongly endorsed by the public and leading patriotic and civic organizations. The suit is still to be tried.

The threat of commercial developments to the New York Monuments erected on the Manassas Battlefield is probably averted by the action of the New York Legislature which appropriated approximately \$50,000 so the Service could purchase the desired lands for addition to the national battlefield park.

Chalmette National Historical Park, site of the Battle of New Orleans, now divided into two major parts, is threatened with a great industrial development on intervening private lands. Not only would that be unsightly, but it would make it almost impossible effectively to convey to visitors the story of the battle.

For the moment at least, a serious threat to the Adams Mansion, in Quincy, Mass., seems to have been averted. The street in front of this historic home was to have been widened and converted into a through traffic artery. Not only would this have produced a major change in the surroundings but the vibration caused by heavy traffic would have endangered the stability of the house.

Carter's Grove, an eighteenth-century plantation mansion associated with leading Colonial and Revolutionary figures, was threatened with encroachment by a railroad line which the Army planned to construct for training purposes. This estate is in private ownership, but its inclusion in Colonial National Historical Park—when and if means are found to accomplish that—has been authorized by Congress. The Service joined with numerous patriotic organizations in persuading the military to find a different solution to their needs.

Restoration, Stabilization, and Rehabilitation of Historic Buildings.—The official designation of historic sites and structures does not automatically assure their stability; they deteriorate regardless. Restoration is low in priority among processes of protection and interpretation, but it is occasionally the wise thing to undertake.

While funds for rehabilitation and stabilization have been small, some noteworthy accomplishments have been possible. The work of

saving the historic sutler's store at Fort Laramie National Monument is nearing completion, after stabilizing the walls, placing new concrete footings, and repairing the interior. The old water wheel and blast machinery at Hopewell Village National Historic Site were restored; for the first time it is possible to interpret the operation of a blast furnace to visitors. At Independence National Historical Park Project, rehabilitation of two historic residences was completed, and is nearing completion for a third. These will be utilized to house project personnel. Repointing of the massive walls of the Castillo de San Marcos, Fla., continued and these are now stabilized. Similar needed repointing is being done at nearby Fort Matanzas National Monument. At Fort Pulaski National Monument, Ga., several casemates have been rehabilitated to house exhibits, and some masonry repointing has been done; moisture control in the casemates remains an unsolved problem.

The roof and gutters of the ante-bellum Beauregard House at Chalmette National Historical Park were repaired; it is boarded up until the house can be restored as an administration and reception center. The Schuyler House, Saratoga National Historical Park, underwent considerable repair and repainting. Situated several miles from the battlefield, it is to be administered by patriotic groups in Schuylerville as a house museum. Important repairs were also required at the Hawkes House, Salem Maritime National Historic Site; at the Adams Mansion; and at Hampton National Hospital Site, Md. At Hampton, a number of the majestic trees which have lent so much to the charm of the site were blown down during a recent severe storm.

The foundations of the early Colonial Governor's house at Jamestown, in Colonial National Historical Park, were excavated and stabilized; the west wing of the Ambler House ruin was also given stabilizing treatment.

Some prehistoric ruins also needed attention. The most notable work included comprehensive stabilization of the west (main) pueblo at Aztec Ruins National Monument, N. Mex.; continued work of the same sort at Kin Kletso (Yellow House) in Chaco Canyon National Monument, N. Mex.; and a long start on two notable ruins in Wupatki National Monument, Ariz.

Assistance in Safeguarding America's Historic Heritage.—The President, the Congress, other Federal agencies, State agencies, and patriotic organizations and individuals have all made numerous calls on the Service for assistance either in appraising the historic values of various sites or in preserving them. Studies were made of 36 places at the request of the President or Congress. These ranged from mysterious Dighton Rock, Berkeley, Mass., carrying an inscription believed to be by the Portuguese navigator Cortoreal, dated 1511, to

the John Dickinson House in Dover, Del., to the grave of Sacajawea, Indian heroine of the Lewis and Clark Expedition, and to the memorial site in Brooklyn where 256 Maryland soldiers, killed in the Revolution, lie buried in unattractive surroundings. Such studies require intelligent research and the dispassionate weighing of historical records.

Patriotic organizations, State officials, and individuals pleaded for aid in the interest of preserving 48 places of historic interest. While it is not always possible immediately to suggest means of preservation or even to prevent loss, in a heartening number of instances it was possible to help.

Other Federal agencies asked assistance in studying the historical, archeological, and recreational resources of Alaska, the Virgin Islands, Hawaii, the Saipan District, Guam, and Wake Island. Following on-the-ground investigations by two Service employees—a land planner and an archeologist—they formulated recommendations to the High Commissioner for the Trust Territories concerning preservation and use of such resources in the Territories.

Approximately 120 bills were introduced in the Eighty-second Congress in the interest of historical conservation likely to affect the Service's program. Of these, 38 related to established or proposed areas; 36 to 28 memorial projects; 11 to national cemeteries; 6 to river-basin programs; and 29 were of miscellaneous nature involving 25 different projects. Collaborative aid to the President, the Bureau of the Budget, and the Congress was given by the Service in connection with all of these. In many cases, the advice and opinion of the Service saved the Government considerable sums by giving sound advice adverse to projects which, if approved, would cost large amounts for development and administration.

Historic and Cultural Preservation in Time of War.—The Service's History Division, at the request of the Department of State, agreed to assume leadership in advising on matters relating to a draft of an International Convention for the Protection of Cultural Property in the event of armed conflict. Subsequently it participated in discussions with agencies of the Departments of State and the Army, in an advisory capacity, on a proposed Unilateral Declaration on the Protection of Cultural Property in the event of armed conflict. This group, with representatives of the Smithsonian Institution, National Gallery of Art, and National Archives, conferred on the various questions that had arisen in connection with this task. Though it was recommended that representatives of the United States attend the July meeting of experts in Paris which is to make a final draft of the convention, it was expected that only two observers from the United States would attend.

Historical Research.—The past year has been notable both for the quantity and the quality of research in history, carried on both by Service personnel and by others at the instance of the Service. Perhaps the most significant has been the program conducted at Independence National Historical Park Project, which requires a tremendous amount of research. Though much of it has been carried on by Service historians assigned to the project, its scope has been greatly extended through cooperative programs with the graduate faculties and students at the University of Pennsylvania and Bryn Mawr College. More than 30 graduate students are now completing studies which will meet requirements for advanced degrees and at the same time will give the Service the benefit of their research findings.

Space does not permit a listing of the very large number of historical research projects launched or completed, relating either to existing or prospective historical areas in the National Park System. In addition, a significant reconnaissance of the historical and archeological resources of Alaska was completed as a phase of the Service's recreation study of the territory.

Archeological Explorations.—Archeological work in areas administered by the Service was advanced materially during the year. Of wide public interest were the beginnings of excavations at Fort Frederica National Monument. There the Hawkins-Davidson House foundations were uncovered and left exposed as a public exhibit. A long-abandoned well on the site yielded a quantity of interesting artifacts. The study of the furnace area at Hopewell Village National Historic Site was completed. Further work was done at Glass House Point in Jamestown; funds were donated also for work at Fort Caroline, Fla., on lands acquired by the Service during the year.

Limited excavations were resumed at Effigy Mounds National Monument, Iowa, and preliminary archeological reconnaissance was undertaken at Grand Portage National Historic Site and Isle Royale National Park. In the Southwest, Archeologist Schroeder made an archeological survey of the Lower Colorado Valley, and a site survey of Mesa Verde, begun in the spring, is continuing this summer. A survey of Organ Pipe Cactus National Monument was completed by Collaborator Paul H. Ezell. At the year's end data were being prepared and reports written on excavations at Bandelier, Gran Quivira, Zion, and Canyon de Chelly. Excellent final reports were submitted on excavations at Site 16 and Sun Point Pueblo, at Mesa Verde.

In Region Four, archeological investigation at Fort Vancouver continued. At Hawaii National Park, two native collaborators surveyed prehistoric sites significant in native tradition. The University of California, under contract, began a survey of archeological sites in

Yosemite National Park and Lava Beds National Monument which is continuing this summer.

River Basin Archeology.—The interagency archeological salvage program in river basins, a joint project of the National Park Service, the Smithsonian Institution, and other Federal and State agencies, continued to rescue irreplaceable scientific data from reservoir areas prior to flooding, with the National Park Service assuming larger responsibilities for such work except in the Missouri River Basin. With an allotment of \$95,783 for 1952, and with carry-over funds, the Smithsonian was able to carry on its operations in the Missouri basin throughout the summer of 1951, and with other funds, to direct 6 surveys, 11 archeological excavations and 1 historical excavation, in other basins.

The Universities of California, Oregon, Washington, Texas, and Oklahoma, under contract with the Service, performed surveys on a number of reservoir sites outside the Missouri. Similar contracts, for surveys in the Missouri Basin, covered work performed by the Universities of Kansas, South Dakota, Nebraska, Wyoming, Missouri, and Montana, the State Historical Society of North Dakota, the Nebraska State Museum, and the Nebraska State Historical Society. They worked on at least nine major sites. Through their joint efforts invaluable archeological material has been salvaged and our knowledge of the history of the Plains Indians has been increased more in 1 year than it would otherwise have been increased in 50.

IN THE NATURAL HISTORY FIELD

As is to be expected, the increased number of visitors to the national parks and other scenic-scientific areas is reflected in increases in the number served by interpretive programs. For the 52 areas which report such contacts, the year's figure was approximately 14,000,000. That does not mean, of course, that 14,000,000 different individuals were served; but one needs only to observe the overcrowding of the Yavapai Observation Station at Grand Canyon for the several daily lectures, or the long lines accompanying park naturalists on guided trips, or the crowds in museums, or the turnouts at evening campfire programs to realize that visitors take to these easy and pleasant means of learning.

An important aspect of the work of the naturalists employed in the field is that of supplementing the other protection activities of the Service. In talks and informal discussions, opportunities are seized to convey to visitors some conception of the policies of the Service and of the regulations designed to make them effective and to protect the

natural features. In many cases, interpretive programs appear to be an effective weapon against vandalism.

The best programs are those that have been developed in accordance with carefully prepared plans. Such planning has been a major concern of natural history personnel in the Washington and regional offices. Distinct progress along these lines can be recorded for Blue Ridge Parkway, Shenandoah, Wind Cave, Platt, Hot Springs, and Mount McKinley National Parks, and Dinosaur National Monument. Platt, Hot Springs, Big Bend, and Isle Royale all need park naturalists, and at least one more position is needed in both Southwestern National Monuments and Rocky Mountain National Park. A regional naturalist in Region One is also an urgent need.

Elk Control and Grand Teton.—About 40 square miles in the northeastern portion of Grand Teton National Park were opened to regulated reduction of elk in accordance with Public Law 787. A take of 600 elk being agreed upon by the Wyoming Game and Fish Department and the National Park Service, 1,200 hunters were deputized as temporary park rangers. Of these, 510 reported for "duty" and killed 184 elk. This was less than 10 percent of the total kill in northern Jackson Hole and about 4 percent of the total kill for the Teton Management Area. Had no elk been killed in the park at all, the total reduction would still have exceeded the goal; the 1951 experience does not support the contention that hunting in the park is necessary for adequate control of the southern Yellowstone elk herd.

Bears and Other Dangerous Animals.—In an endeavor to persuade visitors to comply with regulations prohibiting the feeding, molesting or teasing of bears, more than 1,000,000 red-and-black, briefly-worded printed warnings were handed out to them last summer. Yet, during the summer, 38 persons were injured in Yellowstone alone, and in the majority of cases hand-to-mouth feeding was the direct cause. Troublesome largely because of having become accustomed to hand-outs, 47 of Yellowstone's bears had to be destroyed. Because other wildlife of the parks is also dangerous, and because feeding or molesting them is detrimental to the animals themselves, the prohibitions formerly applied to bears were extended to include deer, moose, buffalo, mountain sheep, elk, and antelope.

Reduction Programs.—The northern Yellowstone elk herd, a perennial problem of overpopulation, was reduced last winter by about 3,800 head. Favorable weather conditions which induced the elk to move northward out of the park in late December made possible reduction of 3,200 by hunters in Montana between then and January 31. In the park, five live traps caught about 1,200. Of 629 taken out of the park and released in open hunting territory, about 60 percent

were killed in legal hunting. Another 563 were shipped out for restocking areas in several States and to public and private preserves. With these reductions, and natural mortality, the herd was estimated to number 8,000 at the end of winter. With an expected 20 percent calf crop, the herd will still be about 4,500 in excess of range-carrying capacity in 1952.

Elk and deer reduction programs were carried out again at Rocky Mountain National Park, and a mule deer reduction program at Zion National Park.

Studies of Wildlife.—Relationships of population to food supply such as those which resulted in the controlled reductions listed above were the subject of considerable study by wildlife specialists, who also carried on a variety of other investigations aimed at ascertaining the survival rate of and factors affecting the welfare of rare or reintroduced species; determining the effects upon park populations of predator control measures near the parks; inventorying bird and other wildlife populations; and other problems affecting wildlife management. Of particular importance are the elk-range studies, and investigations of predator abundance, effect of predators on prey species, and predator migrations, launched at Olympic National Park last spring. The predator-relations study is the outgrowth of brief investigations of elk during the past 2 years.

WORK OF THE MUSEUM LABORATORY

To the uninitiated, the variety of highly valuable and necessary work performed by the Service's museum laboratory is somewhat astonishing. One major aspect of its work is preservation of historic and scientific collections entrusted to the Service; another is the design and construction of museum exhibits. Museums are important tools of interpretation and the Service probably operates more of them than any other agency anywhere.

The laboratory was consulted in preservation techniques by the Army, the Navy, and the National Trust. The variety of work it performs is indicated by such examples as the restoration and preservative treatment given paintings in the famous Independence Hall collection of portraits as well as in five other areas; cleaning and treatment of weapons and various other metal objects; and treatment of old books, maps, and prints. As much storage equipment as could be purchased with the limited funds available was obtained and supplied to field areas in greatest need of it.

A large number and variety of exhibits were designed and built by the laboratory staff. Those for the Ocmulgee National Monument museum were completed in time for the opening ceremonies last No-

vember; all exhibits except part of the figures for one diorama were in place when the new Custer Battlefield museum was dedicated in June. Exhibits for the small Ochs museum, on Lookout Mountain, Chickamauga and Chattanooga National Military Park, were installed last January. Using funds donated for the purpose, the laboratory is working on four of the dioramas for the Zenger Memorial Room in Federal Hall Memorial. It built, or is building, exhibits for 11 other areas. It performs a variety of other services, such as review of museum prospectuses, preparation of museum layouts, consultation on museum problems—extended also to several State park authorities—and operation, with the History Division, of an in-service training course in museum methods. Among the students in this year's course was the Director of the Iraq National Museum of Natural History, here on a UNESCO fellowship.

TO AID IN UNDERSTANDING

Previous annual reports have noted the trend, forced upon the Service by overwhelming increases in numbers of visitors and by the lag in numbers of interpretive personnel, toward the use of supplementary means of giving the interested visitor some sense of the meaning of the areas administered by the Service. This trend has been heightened during the past year in the increasing use of self-guidance practices and of audiovisual aids. These have both advantages and disadvantages.

Examples of the procedures which have been adopted to meet these conditions are numerous. A synchronized tape recording and slide projection was installed at Bandelier National Monument, N. Mex., to help orient visitors waiting for the beginning of the scheduled tour of prehistoric ruins. Plans were perfected for installing a recorded talk by public address system on the boat carrying visitors to the Statue of Liberty. With the necessary closing of Montezuma Castle, Ariz., to visitors, a large scale model of that picturesque cliff dwelling was installed under glass in a shelter in the valley below it. This has proved effective in helping visitors understand the construction and use of the original structure. It seems to be a happy solution to the interpretive problem faced when it became necessary to close the ancient structure to visitors.

At Lake Mead National Recreation Area at the reception center in Boulder City, the visiting public is now given orientation on the recreational development and use of the national recreation area by a fine recorded lecture synchronized with automatically projected slides. Similar installations have been placed at Crater Lake, Acadia, and Wind Cave National Parks.

In the scenic-scientific areas, there are today 26 self-guiding trails as compared with 12 in operation a year ago. In a few of these, the guidance is supplied by signs bearing interpretative legends along the trail. Increasingly, however, booklets or leaflets keyed to numbered posts along the route are being utilized. Some of these special interpretive publications have been provided in the Service's printing program; a greater number, however, have been produced by co-operating societies. Particularly notable have been those produced by the Southwestern Monuments Association, headquartered at Santa Fe, and by the Loomis Natural History Association, at Lassen Volcanic National Park. The former provides its handsome booklets for free use on the areas with which they deal, but interested persons may buy them to take home. The latter has issued *A Guide to the Lassen Peak Highway* and other supplementary booklets as sales publications which have proved extremely popular with visitors.

Traveling Exhibits.—A start has been made on the preparation of interpretive displays, intended to serve as traveling exhibits, to cover major phases of the Service's work, something for which there is both considerable demand and real need. The first two, planned by the History Division, and designed and built by the Museum Branch, dealt with the media and methods used in interpretation of historic and prehistoric areas, and with the interagency archeological salvage program. Both have already been exhibited at important gatherings and have received most favorable comment.

Television.—Though there is a tremendous amount of usable subject-matter in the national parks and other areas administered by the Service, the means of reaching the public with it, via television, scarcely exist. Yet interpretive staffs have participated in effective fashion on several occasions. The important historical program under way at Independence National Historical Park Project has received frequent attention in the television programs of the Philadelphia public-school system, and a number of telecasts have featured distinguished visitors at Independence Hall. Philadelphia stations have also treated the Battle of Gettysburg and the Service's interpretive work there. Edward R. Murrow recently drew attention to Statue of Liberty National Monument in his national program, "See It Now."

Celebrations and Pageants.—Several colorful pageants and celebrations were held in historical areas during the year. The dedication of Grand Portage National Historic Site, Minn., last August 9, was participated in by United States and Canadian diplomatic representatives, and by representatives of the Minnesota Chippewa Indian Tribal Council, the Bureau of Indian Affairs, the Minnesota Historical Society, and the National Park Service. With the Ocmulgee Auxiliary Corporation, a group interested in aiding with the develop-

ment and interpretation of Ocmulgee National Monument, as sponsor, the completion of the Ocmulgee museum was observed on November 2. Construction of the modern-style museum was started in 1938 but was halted by the war. Funds for its completion were appropriated by Congress in 1950. Col. B. C. W. Custer, descendant of Gen. George A. Custer, brought to Appomattox Court House National Historical Monument a flag of truce and a Virginia State battle flag which had figured in the closing battle of the Civil War. Their return was the occasion of brief and colorful ceremonies. The flags came from the Custer Collection, willed to the National Park Service by General Custer's widow. Items from that collection occupy a prominent position among the exhibits in the museum at Custer Battlefield National Monument, which was dedicated before a distinguished gathering on June 25—the 76th anniversary of the Battle of the Little Big Horn. The Tennessee Historical Society, other patriotic organizations, and Service representatives participated in ceremonies commemorating the 90th anniversary of the Battle of Shiloh on April 6 and 7. Anniversary ceremonies were also held at Moores Creek National Military Park, the Lincoln Museum, and at Dorchester Heights National Historic Site.

With Service approval, a pageant of the Revolution, entitled "Then Conquer We Must," was first performed at Kings Mountain National Military Park last October. Its second season began on June 15. The Hiawatha Pageant was also offered with great success at Pipestone National Monument on August 3, under the auspices of the Pipestone Exchange Club.

THE LAND PROGRAM

The land program of the National Park Service is long range and one directed at the ultimate acquisition of all lands situated within the approved boundaries of areas of the National Park System. Though notable progress was made during the year, this work was seriously handicapped by the loss of personal services as a result of appropriation-act riders.

Purchases.—The most extensive transaction involving the purchase of lands in an already established area has been the determination of condemnation awards for extensive holdings in Everglades National Park. Condemnation trials were divided into five groups; awards have been made in four of these. By the end of the year, approximately \$1,600,000 had been expended or obligated for the acquisition of about 390,000 acres. All lands within the park are owned by the United States by virtue of a declaration of taking, filed in December 1950, on 125,000 acres involved in the five groups of cases mentioned

above. It is proposed to expend the balance of the \$2,000,000 donated by the State of Florida for Everglades land acquisition for purchases within the authorized park extension.

To alleviate the acute personnel housing shortage at Great Smoky Mountains National Park, the Service purchased a life estate in 102 acres on which are several good houses and other usable buildings. Important parcels were acquired or optioned in Glacier and Rocky Mountain National Parks; two critically important lots in Colonial National Historical Park were acquired by declaration of taking. A 1.8-acre parcel, on which part of the site of the old fort is situated, was bought with National Park Trust and donated funds at Fort Raleigh Historic Site.

A major transaction, not involving lands, was the purchase of the Rainier National Park Co.'s facilities for \$300,000.

Settlements were reached, by stipulation or court judgments, on 17 parcels in connection with the declaration of taking on 27 parcels of land in the Independence National Historical Park Project, filed on March 1, 1951. A second declaration was filed on 12 parcels on December 12, 1951. For the first group, \$791,600 was deposited with the court; for the second, including the 12-story Drexel Building, \$1,224,500 was deposited. Use and occupancy agreements with several defendants in the first group, for periods up to 5 years, have reduced the costs of acquisition materially. No settlement in the second group had been reached at the end of the year.

On this project, for which Congress had authorized and appropriated \$4,435,000, options in excess of \$1,000,000 have been accepted. Negotiated acquisitions costing approximately \$400,000 have been completed. Total obligations, plus a small reserve fund, approach closely the total appropriated. An increase of authorization to \$7,700,000 has been approved; an appropriation under the increased authorization is the next step toward acquiring the rest of the lands in the project.

Title to the approximately 110 acres authorized for inclusion in the Fort Caroline National Historical Park Project has been acquired through declaration of taking. Estimated just compensation of \$44,135 has been paid into court.

Since negotiations for purchase of the Old Stone House, in Washington, D. C., within the \$90,000 appropriated for it were unsuccessful, condemnation proceedings have been instituted.

Donations.—Donations of \$618,000 were made by the Avalon Foundation and the Old Dominion Foundation to match an equal amount provided by the State of North Carolina for the purchase of the lands within the boundaries authorized for the establishment of the Cape Hatteras National Seashore Recreational Area in North Carolina. The

Old Dominion Foundation is a Virginia charitable and educational foundation created by Paul Mellon, and the Avalon Foundation is a Delaware charitable trust established by Mrs. Ailsa Mellon Bruce. It was the interest of these foundations in conservation that moved them to make these generous donations. The Cape Hatteras project was authorized by act of Congress approved August 17, 1937. The National Park Service, through a land acquisition office at Manteo, N. C., will conduct the negotiations for the purchases to be made with the total fund of \$1,236,000. When completed, the Cape Hatteras National Seashore Recreational Area will contain approximately 30,000 acres of unspoiled beach, the most extensive stretch of undeveloped seashore remaining on the Atlantic Coast. The Avalon and Old Dominion Foundations and the State of North Carolina, through their generous contributions, have done a great service both for the people of North Carolina and of the whole country.

Linville Falls has long been famed as one of the loveliest in western North Carolina, and public ownership has been urged for it for many years. Last winter, John D. Rockefeller, Jr., added another to his long list of benefactions to the National Park System by donating \$95,000 for the purchase of the falls and Linville Gorge, 1,100 acres in all, most of it for addition to the Blue Ridge Parkway. In addition, Jackson Hole Preserve, Inc., donated 800 acres for inclusion in Grand Teton National Park, to which it had previously donated some 35,000 acres.

Through the generosity of Congressman Charles E. Bennett of Florida and numerous friends of the project, funds in the amount of \$40,199 were donated to match an equal amount of appropriated funds toward the acquisition of lands associated with historic Fort Caroline, site of the French Huguenot colony which settled on the St. Johns River in Florida in 1564. A portion of the gift will be used to conduct an archeological investigation of the site.

The Commonwealth of Virginia donated nearly 600 acres of land for addition to the Blue Ridge Parkway, and the State of Mississippi 400 for the Natchez Trace Parkway.

The Collier Corp. donated to the State of Florida 35,000 acres of land north and northwest of Everglades National Park for eventual addition to the park.

The State of West Virginia, with a \$350,000 appropriation, began acquiring approximately 500 acres for the Harpers Ferry National Monument project. It is understood that Maryland has available funds with which to buy about 900 acres, that State's portion of the proposed monument.

Space is lacking in this report to acknowledge individually the numerous gifts to the United States from public-spirited citizens which

have greatly benefited the National Park Service during the course of the year. These include donations of museum pieces, antique furnishings for historic houses, books, manuscripts, and funds for important phases of National Park Service work. To all who have contributed, the National Park Service expresses its thanks.

Exchanges.—Approximately 2,000 acres of North Dakota Historical Society lands and 700 acres privately owned, all in Theodore Roosevelt National Memorial Park, were acquired by exchange. In the same area, pending are exchanges for 3,600 acres of university and school lands and 2,850 acres privately owned. Some 30,000 acres, owned chiefly by the Southern Pacific Railroad Co., in Joshua Tree National Monument, were also obtained by exchange. The State of Montana has made selections of lands it wishes to obtain in exchange for some 9,300 acres in Glacier National Park. In Olympic National Park, about 75 acres, chiefly resort properties, have been obtained by exchange for windthrown and other salvable down timber in the park.

Transfers.—The Forest Service transferred approximately 420 acres to the Blue Ridge Parkway. Also, about 10 acres were transferred from the Veterans' Administration for addition to Mound City Group National Monument. Through Presidential proclamations, Hovenweep National Monument was enlarged by 160 acres; Death Valley National Monument by 40 acres; and Sitka National Monument by 1 acre.

Rivers in Mammoth Cave.—An investigation was made at Mammoth Cave to ascertain what further studies are needed to determine (1) how to stop or control the sedimentation in river sections of Mammoth Cave and (2) what would constitute damage to the park by construction of the proposed Mining City Dam. It was determined that more flow and water-stage records at points in the Cave and on the Green River would have to be obtained for a number of years, and that better knowledge of the source of the Cave streams and sediment was needed. The matter has been referred to the Geological Survey.

Defense Uses of Park Areas.—At the end of the year, there were 51 national defense program types of permits in effect on areas under National Park Service administration, including 11 continued from World War II. Perhaps the most important issued during the year was one for an Atomic Energy Commission program to seek and remove uranium-bearing ore from Capitol Reef National Monument, declared vital to the defense program.

THOSE WHO VISIT THE PARKS

The period of heavy use of the areas administered by the Service is beginning earlier and ending later; visitor totals continue to increase

rapidly, reaching 36,708,494 during the last travel year. At the same time receipts from fees do not increase proportionately. This is primarily attributable to the fact that there have not been enough employees to handle collections during the longer period of heavy visitation. Increased fee income would undoubtedly exceed the cost of employing additional personnel.

Travel Surveys.—The sharp growth of the tourist industry in recent years has begun to attract the attention of the business analysts. Numerous public and private agencies concerned with tourism are interested in obtaining accurate and complete information on pleasure travel and its economic influence. Areas of the National Park System and increased use of public highways occupy prominent spots in the travel picture. As a result of the increasing motor travel, the cooperation of the Bureau of Public Roads and certain State highway departments has been obtained in conducting travel surveys in several parks. Present efforts are being directed toward making a 12-month survey of a representative national park in each geographic region of the country. The ultimate objective is a survey of each type of area so that information applicable to all areas of the System will be available.

The Montana State Highway Commission conducted a tourist survey at Glacier National Park during the summer of 1951 and has published a report of the findings. The Virginia Department of Highways launched a survey at Shenandoah last January—the first national park travel survey to sample travel for each season. Plans are now being completed for a survey of travel to Yosemite National Park. These studies are being conducted in cooperation with the Bureau of Public Roads. The published report, *Crater Lake National Park and Oregon Caves National Monument Vacation Study*, was released during the year. That study was conducted by the National Park Service during the summer of 1950.

COOPERATIVE ACTIVITIES

History and Archeology.—Cooperation between the Service and the State of Washington in the field of historical archeology was perhaps the most noteworthy activity in the Federal-State cooperative program. Experienced Park Service personnel, whose work was financed by the Washington State Park and Recreation Commission, continued explorations at the site of Spokane House. The two reports written by the archeologist in charge reveal that such excavations have greatly increased knowledge of this important pioneer fur-trading post. It is expected to complete the Spokane House excavation this summer and to excavate the site of Fort Okanogan, another fur-trade

center. Consultant service has also been given to the State concerning several of its historical park areas, actual or proposed, a significant extension of the cooperation given in the State park field for the past 16 years.

A number of agencies sought and received assistance on technical problems of a military-historical nature, and on interpretive planning and development. Ohio sought advice on planning the proposed Anthony Wayne Parkway and the State of Washington asked for help in preparing a tripartite agreement for the preservation and interpretation of Fort Simcoe.

State Cooperation.—For the first time, the Service has had a representative in each region assigned to State cooperation throughout the fiscal year. It was thus able to give increased assistance to State park agencies, the National Conference on State Parks, and other agencies. *State Parks—Areas, Acreages and Accommodations* was issued—the first revision since 1946.

Territorial Cooperation.—In connection with the Alaska recreation resources survey, the University of Washington is conducting a tourist survey of the territory; the National Recreation Association, a study of recreation facilities and programs in Alaska towns. This work is being done under contract with the Service. The Office of Naval Research is also helping on a survey of wilderness areas in northeastern Alaska. The University of Alaska will probably participate in an archeological survey of part of the Alaska Peninsula. The Geological Survey, Fish and Wildlife Service, Office of Territories, and others have extended valuable cooperation.

Reference is made elsewhere to cooperation affecting the Trust Territories.

River Basin Studies.—The trend in the Service's participation in river basin studies has been toward a more truly basin-wide approach. Contracts were made with the National Recreation Association to assist in the New England-New York regional survey and in the Arkansas-White-Red River survey, and with Iowa State College to assist in part of the Missouri River Basin survey.

A River Basin Studies and State Cooperation Conference was held at Lake Mead in May. Representatives of the Service's regional and district offices, the Colorado Great Basin Field Committee, the Program Staff, and Assistant Secretary Doty's office participated.

Reservoir Recreation.—Upon approval of a cooperative agreement between the Service and the Bureau of Reclamation, the Shadow Mountain National Recreation Area was established late in June, with the Service undertaking responsibility for development and management of recreation facilities and use there. Progress was made in negotiating agreements with State and local agencies for

management of reservoir recreation areas not of national significance. Recreation area regulations were revised and simplified during the year.

IN THE FISCAL FIELD

Amendments to the 1952 appropriation acts, which set both position and monetary limits for personal services, required, for the Service as for other agencies, the establishment and supervision of controls which made heavy additional demands on the time of fiscal staffs while forcing reductions in fiscal personnel. In the Fiscal Division in the Washington office, the 45 budgeted positions were reduced to 35 by the end of the year.

The 2-month delay in passage of the 1952 Interior Department Appropriation Act added greatly to financial uncertainties throughout the Service. The monetary limitation on the amount of funds expendable for personal services for the Washington office was set at 90 percent of the budget estimates, retroactive to the beginning of the fiscal year. Consequently, it was necessary to cut employment for the 10 months remaining after passage of the act below the 90 percent level, to offset the 100 percent employment during the first part of the year and in order that the reduction might be made by leaving vacancies unfilled rather than by reduction-in-force procedures. The problem of keeping within the monetary limitation for personal services was sharpened by the necessity of making several large lump-sum terminal leave payments.

Equipment Amortization.—The program of equipment amortization recently adopted by the Service has been an outstanding success. In the past, it has been necessary to justify automotive equipment needs as nonrecurring amounts in the annual budget estimate; they could not be included in the appropriation base and were frequently lost during the budget processes. Hence the Service found itself with an automotive fleet mostly of old, worn-out vehicles, retained far beyond their economical life, and extremely costly to keep in repair. The amortization program eliminates those handicaps; it pools all equipment and assigns it to programs or projects to effect the most advantageous use of it. It also results in far better accounting, spreading the cost of the vehicles at established mileage or hourly depreciation rates to the various operations and activities on the basis of actual use. And equipment replacement funds are now included in the appropriation base, not needing to be justified as nonrecurring items.

Decentralization of Fiscal Authority.—In line with Departmental policy, the first step was taken in decentralizing, to the regional offices, certain budget-execution functions, for the following appropriation

activities: Management of park and other areas, buildings and utilities, etc. (maintenance and operation); and buildings and utilities, etc. (construction). This was the first step in ultimate decentralization to the regional offices of budget execution functions for all appropriation activities at regional and field levels. It has many advantages, arising chiefly from the nearness to the scene of operations of the regional directors and their staffs and their more intimate knowledge of field problems and needs. Necessary actions and adjustments are expedited; time and paper work are saved; and better working relationships are promoted.

CONCESSIONS SITUATION SHOWS IMPROVEMENT

Having a well-defined and generally acceptable policy under which to work, the Service has made heartening progress in perfecting contracts for the operation of concessions of many kinds since the Department approved the present policy about a year and a half ago. Most contracts approved or under negotiation require the concessioners to expend, as part of the payment for the privilege of conducting operations in the parks, a percentage of their gross receipts to provide facilities that will result in better and additional public accommodations. All improvements so built are the property of the Government.

Contract Progress.—The Service has entered into 14 new concession contracts; preliminary negotiations have been completed on 15 others and started on 5 more. Sixteen contracts have been extended to give further time for negotiations or for study of operating or development problems which must be resolved before new contracts can be prepared. Twenty subconcession agreements for various services have been approved.

Agreement was reached with a number of concessioners on short-range expansion and improvement programs to be undertaken in the next 3 to 5 years. A majority of the contracts provide for a flat franchise fee plus percentages of gross receipts which vary with the character and conditions of operation.

Approved contracts include the following: S. G. Loeffler Co., and Government Services, Inc., National Capital Parks; Glacier Park Transport Co., Glacier National Park; Lassen National Park Co., Lassen Volcanic National Park; Fred Faver, Lake Mead National Recreation Area; Viola N. Montgomery, Muir Woods National Monument; Emery C. Kolb and Babbitt Brothers Trading Co., Grand Canyon National Park; Hot Springs Mountain Observatory Co., and New Moody Hotel Co., Hot Springs National Park; Virginia Sky-Line Co., Shenandoah National Park; Sequoia and Kings Canyon National Parks Co., Sequoia and Kings Canyon National Parks; Haynes, Inc., Yellowstone National Park; and Cavern Supply Co.,

Carlsbad Caverns National Park. Contracts of major importance on which negotiations have been completed include Yosemite Park & Curry Co., Yosemite National Park; Kilauea Volcano House, Ltd., Hawaii National Park; Mrs. Evelyn Hill, Statue of Liberty National Monument, and Rocky Mountain Motor Co., Rocky Mountain National Park.

Rate Schedules.—Last August, the Office of Price Stabilization issued, at the Service's request, a regulation which permits it to continue its usual rate-approval procedure. Rates become effective 30 days after approval unless previously objected to by OPS. Negotiations are now in progress, looking to elimination of the 30-day waiting period.

Concessions Facilities.—Under the contract awarded to Fred Faver, for furnishing all public accommodations at the Katherine Wash site on Lake Mohave in the Lake Mead National Recreation Area, public requirements are being met currently. With first-quality planning and construction, there is promise of facilities of which concessioner and Service can be proud. * * * A new girls' dormitory at Lake, Yellowstone National Park, under construction last year by the Yellowstone Park Co., was ready for occupancy during the 1952 season. In the Lake Hotel, 53 rooms in the east wing were rehabilitated, and other accommodations and facilities were improved. * * * Water storage at Bryce Canyon National Park was increased 78 percent by construction of a 312,000-gallon tank by the Utah Parks Co.

The Yosemite Park & Curry Co. has completed Oak Cottage, a 32-room guest house, at Yosemite Lodge. The company is also completing a multiple housing unit for employees of the company and a company residence in the new Tecoya area. Heavy snows last winter caused the collapse of the west section of Big Trees Lodge and severe damage to the east wing.

The Virginia Sky-Line Co. completed and dedicated a new, thoroughly modern dining room at Skyland. It is also constructing a new lodge building in the Skyland area. * * * A notable new service was introduced at Everglades National Park with execution of a 5-year agreement for sightseeing boat operation.

Lack of adequate transportation continues to limit public use of Isle Royale National Park and forced National Park Concessions, Inc., to ask for authority to discontinue operations at Windigo Inn, Washington Harbor. This has the further effect of discouraging the development of small-boat service from Minnesota take-off points.

THE FORESTS OF THE NATIONAL PARK SYSTEM

During the calendar year 1951, for which the Service's record of forest fires is complete, 320 fires originated within the park boundaries

or spread across boundaries from outside. Perhaps the most notable fact in this connection is that of the 165 man-caused fires that started inside, only 79 were reported as probably caused by nonlocal travelers, although the visitor total was the greatest ever. The problem of carelessness with fire by those resident near the parks needs particular attention.

Fire losses were reduced in all areas except Everglades National Park, where 96 percent of the total land area burned over is situated. There fire swept over 42,984 acres, of which 40,214 acres were grassland. The large fires in Everglades were caused by lightning, and 1951 was the first year in which lightning has been officially established as a cause of fire there. Though protection against fire has vastly improved since establishment of the park, it needs to be further strengthened both in and adjoining the park.

Fire control training and preparedness were materially strengthened during the year through more effective training techniques; by improved cooperation with other agencies; and by installation of a small smokejumper crew in Yellowstone National Park. Due to the wet season at Yellowstone, the effectiveness of this last arrangement was not put to a test.

Forest Insect Control.—Effective forest pest control was carried on in a number of areas. Maintenance control has been effective in keeping barkbeetle and defoliator losses to a minimum, in spite of inadequate funds from the control-of-forest-pests appropriation and the fact that the first allocation was not made to the Service until late October. All control of defoliators—*insects that feed on the leaves or needles of trees*—was performed on eight areas in the Southwest, by spraying insecticides either from mistblowers or from airplanes. A virus disease present in the needle-miner population gives hope that the lodgepole pine needle-miner epidemic in the Tenaya Lake area of Yosemite National Park, unchecked for several years, may soon be controlled. Increased activity by barkbeetles in areas adjacent to California national parks is a threat requiring watching, though it has been reduced to some extent by recent control measures on these adjacent areas. The spruce barkbeetle epidemic adjacent to Rocky Mountain National Park and the spruce budworm in Montana are also threats to be watched.

A highlight of the past fiscal year was the completion of the Teton-Targhee Mountain pine beetle control project. This project, started in 1947, cost the United States Forest Service and the National Park Service approximately \$1,271,000. Its success ended the threat to more than 2 million acres of lodgepole pine in Shoshone National Forest and Yellowstone National Park.

White Pine Blister Rust Control.—Control of white pine blister rust was initiated by the National Park Service at Acadia National Park in 1921, and to date work has been undertaken on 361,330 acres in 13 national parks and 1 parkway. On about 55 percent of this acreage, control work now consists only of infrequent working. Initial work is completed on 301,665 acres. During the year, 2,081,712 viburnum plants—currant or gooseberry, the alternate host of the disease—were eradicated in the 10 areas in which work was carried on.

Oak Wilt.—Although oak wilt, lethal to native oak species, has been found in widely scattered locations, Effigy Mounds National Monument, Iowa, is the only Service-administered area in which it has been discovered. Control efforts were started there in the spring of 1951 and continued this year. They involved removal of infected trees and isolating these infection centers from the rest of the oak stand. This isolation is accomplished by cutting or poisoning all oaks within 40 feet of the infected trees, as the only known means of transmission of the disease is by root grafts.

Ponderosa Pine Mistletoe Infestations.—Initial control work on the infestation of ponderosa pine mistletoe at Grand Canyon was completed during the past year, 3 years after it was initiated. This involved removal of all infection from the stand, either by pruning, poisoning, or removal of the infected trees. Last summer, representatives of the Division of Forest Pathology, after a survey, recommended control work similar to that at Grand Canyon on about 960 acres in the northern portion of Bryce Canyon National Park, where the mistletoe has caused considerable loss. Funds to launch this project were included in the 1953 fiscal year estimate.

Grazing.—Grazing records for the National Park System are maintained on a calendar-year basis. During 1951, 130 permits were authorized in the western areas for a total of 107,923 animal-unit months. After gradual annual reductions, domestic livestock grazing was terminated in Carlsbad Caverns National Park at the close of the calendar year.

Tree Preservation.—The six-man mobile tree-preservation crew, working in the North during the summer and in the South during the winter, continued its excellent work, providing tree maintenance in 21 areas in Region One. Except for Acadia and Mammoth Cave National Parks, where there are valuable shade trees at long-developed areas, all of the crew's work was in historical areas. Supplementing their work, funds were provided for contract spraying of elms at Vanderbilt Mansion, Home of Franklin D. Roosevelt, and Adams Mansion National Historic Sites and Morristown National Historical Park, to protect their trees from Dutch elm disease.

PERSONNEL MANAGEMENT

As was doubtless the case in many other agencies, the outstanding fact about personnel management in the Service during the past year has been the reduction in personnel and other restrictions resulting from amendments to 1952 appropriation acts. The Ferguson amendment caused drastic reductions in the administrative personnel of the Service, including the staff of the Personnel Division; the Jensen amendment required the keeping of records which complicated and tended to delay operations; the Whitten amendment to the Supplemental Appropriation Act of 1952 blocked many well-deserved promotions or delayed them for periods ranging from a few weeks to many months.

Promotion Policy.—The promotion policy of the Service was restated and brought up to date. Also, important changes were inaugurated in promotion lists and promotion procedures to give better assurance that all who deserve promotion will be considered when opportunities arise.

Advance in Training Program.—Addition of a training officer to the staff of the Personnel Division permitted stepping up the Service's training program considerably. It enabled the Division to assist in conducting two very successful personnel instruction courses, one in the Region Two office in January, the other in the Region Three office in April. These were attended by 54 outstanding field employees.

Other results have been the preparation and publication of an orientation booklet for field employees, and the preparation of a manual for use in training supervisors, expected to be issued early this year.

Delegations of Authority.—Noteworthy during the year were additional delegations of personnel authority to the Director and by him to the field. One of these gave the regional directors authority to establish appropriate pay rates for ungraded employees. Another permits field officials to make appointments and status changes in positions through Grade GS-9—two grades higher than previously. The Director was also authorized to approve collaborator appointments, without compensation. These delegations should considerably increase the speed of processing personnel actions and lead to increased efficiency of operation and better employee morale.

Occupational Studies.—Occupational studies for historical aides guides, communications positions, and administrative officer positions were completed. The first two were undertaken in connection with the writing of specifications for such jobs. An occupational study of park superintendent positions has been started, as has a study of supervisory park ranger positions in Region One.

Personnel Changes.—Following are the principal promotions, transfers and retirements which have been effected during the year:

Retirements.—Washington: Arthur E. Demaray, director; John D. Coffman, chief forester; Frank A. Kittredge, chief engineer; C. D. Montieth, chief, Electrical Branch, Design and Construction Division; Burns C. Downey, chief, Rate Control Branch, concessions Management Division; C. Max Bauer, geologist, Natural History Division. Field: Charles J. (White Mountain) Smith, superintendent, Zion and Bryce Canyon National Parks; Ernest P. Leavett, superintendent, Crater Lake National Park; Max R. Wainwright, superintendent, Lehman Caves National Monument.

Transfers and promotions.—Washington: Conrad L. Wirth, from associate director to director; Thomas J. Allen, from regional director, Region One, to assistant director; Lawrence F. Cook, from assistant chief forester to chief forester; Paul McG. Miller, from chief, Minor Roads Branch to chief engineer, Design and Construction Division; Erwin H. Cort, first from rate analyst to chief, Business Analysis Branch, and then to chief, Rates Control Branch, Concessions Division; Frank H. Longfellow, from chief, Restaurant Branch, OPS, to chief, Business Analysis Branch, Concessions Division; Charles B. Foster, Harry M. Elsey, and Paul Pernecy, Jr., from business accountant, to chief, Field Audit Section, assistant chief, Financial Control Branch, and assistant chief, Commercial Audit Branch, respectively, Audit Division.

Field: Elbert Cox, from associate regional director to regional director, Region One; Daniel J. Tobin, from superintendent, Lassen Volcanic National Park, to assistant regional director, Region One; John C. Preston, from superintendent, Mount Rainier National Park, to superintendent, Great Smoky Mountains National Park; Preston P. Macy, from superintendent, Olympic National Park, to superintendent, Mount Rainier; Fred J. Overly, from chief, Real Estate Branch, Lands Division, to superintendent, Olympic; James W. Holland, from superintendent, Shiloh National Military Park, to regional historian, Region One; Ira B. Lykes, from manager, Prince William Forest Park, to superintendent, Shiloh; Charles E. Humberger, from chief ranger, Isle Royale National Park, to superintendent, Mount Rushmore National Memorial; Earl H. Semingsen from chief ranger, Everglades National Park, to superintendent, Wind Cave National Park; Fred T. Johnston, from assistant superintendent, Yellowstone National Park, to superintendent, Lassen Volcanic National Park; Warren F. Hamilton, from assistant superintendent, Natchez Trace Parkway, to assistant superintendent, Yellowstone; Curtis K. Skinner, from chief ranger, Yellowstone, to assistant superintendent, Mount Rainier; Harthon L. Bill, from assistant superintendent, Mount Rainier, to

assistant superintendent, Yosemite National Park; John B. Wosky from assistant superintendent, Yosemite, to superintendent, Crater Lake National Park.

Awards.—The Department of the Interior Distinguished Service Award was made to retiring Director Demaray, Chief Forester Coffman, and Chief Engineer Kittredge, and, posthumously, to the late Chief of Concessions Oliver G. Taylor, as well as to former Ranger Blake C. Vande Water. The Department's Conservation Service award went to Paul K. Petzoldt, for his heroic voluntary search, with Ranger Vande Water, for the New Tribes Mission plane which crashed on Mount Moran, Grand Teton National Park, in November 1950. Dr. Jesse L. Nusbaum, departmental archeologist, received an efficiency award under title X of the 1949 Classification Act.

LEGISLATION

Although Congress adjourned shortly after the beginning of the 1953 fiscal year without acting on several bills desired by the Service, a number of others were passed and approved. Appropriations to complete land acquisition at Independence National Historical Park Project, for the addition of land to Mound City Group National Monument, and for the acquisition of Gila Pueblo, near Globe, Ariz., for use as Southwestern National Monuments headquarters were authorized. Land exchanges were authorized at Death Valley and Badlands National Monuments. The Coronado International Memorial Act was revised to provide for establishment of a national memorial. Several measures will effect a saving for the Federal Government or improve administration. These include conveyance of Centre Hill Mansion at Petersburg National Military Park to the Petersburg Museum Corp.; conveyance of a road right-of-way in Acadia National Park to the town of Dedham, Maine; conveyance of surplus Blue Ridge Parkway lands to the Forest Service; authorization of maintenance and operation of acquired properties at Independence National Historical Park Project; and provision for the protection of scenic values along the Grand Canyon approach road.

LITIGATION

The case of *Peterson v. United States*, involving the question of Federal jurisdiction over private lands within Sequoia and Kings Canyon National Parks, was concluded in favor of the United States. Both the District Court and the Court of Appeals held that cession of exclusive jurisdiction from the State of California gave the United States power to regulate such lands. Petition for certiorari was denied by the Supreme Court.

The District Court for the Southern District of California found for the plaintiff in the suit brought against the United States by William L. Claypool under the Federal Tort Claims Act to recover damages for injuries resulting from an attack by a bear in Yellowstone National Park. Damages had not yet been awarded at the end of the year.

KEEPING THE OWNERS INFORMED

The provision of information about its activities and its policies is a function which the public has a right to expect of any Government agency. It may be performed in a great variety of ways. A basic obligation is to give the facts as honestly and straightforwardly as possible, and to avoid propaganda which relies on concealment or distortion.

Dealing directly with millions of joint owners of the properties it manages, the Service must meet extraordinarily heavy demands for information. And since accurate printed informational material is essential to both enjoyment and protection of the parks, one of its most necessary tasks is the production of numerous publications.

All of this is work for trained personnel; not something which the administrator can undertake as a sideline. The Service has no information personnel in its regional offices; hence, much work of kinds that other agencies perform in the field must be done by the small Washington office information staff. Never large enough to undertake more than a part of the legitimate functions which might be performed, this staff was reduced from 11 to 8 employees as a result of an amendment to the 1952 Appropriation Act. This severely handicapped the performance of legitimate functions.

Publications.—For every four visitors in 1941, there were seven in 1951. Today's printing dollar will probably not buy half as much as that of 1941. Yet there are fewer dollars for production of informational literature than in 1941. This fact compels the most rigid economies—reductions in size and content of publications, and careful, almost niggardly distribution procedures. Visitors are handicapped in not receiving information to which they are entitled and that is needed for their protection and the protection of the areas.

During the year, 6,807,000 pieces of free informational literature were requisitioned—less than one to every five visitors. Thousands of these were supplied to meet requests received by the Washington and field offices. In addition, there were issued four more items in the historical handbook series—for Shiloh and Petersburg National Military Parks and Fort Sumter and Statue of Liberty National Monuments. Projected, though none has yet been issued, is a series of

natural history handbooks. Also, another series of modest booklets is planned, to acquaint the public with various phases of the Service's work. The first of these should appear during the 1953 fiscal year.

Press Releases.—Most field areas issue occasional press releases to nearby newspapers. In the Washington office, their preparation is a very minor phase of informational activity. Those which are issued deal factually with matters of legitimate news and, in accordance with the law, are sent only to publications or persons who have requested them.

Motion Pictures.—After inviting competitive bids, the Service awarded a contract to Encyclopedia Britannica Films, Inc., to revise and distribute the Atwater Kent Foundation-Ted Phillips film of Yosemite National Park, a gift to the Service in 1949. The purpose is to assure the widest possible distribution of this fine picture. The United States Treasury will receive a royalty on all copies sold. This spring, Mr. Phillips has been taking footage for a film, for General Petroleum Corp., to tell the Grand Canyon story, something in which the Service has made numerous efforts to interest motion-picture companies.

Yellowstone, Wind Cave, and Everglades staffs cooperated with the Walt Disney studios in connection with the shooting of footage for three of the True Life Adventure Series which have done so much to waken Americans to the wonders of Nature. "The Olympic Elk," one of this series taken in Olympic National Park, was released during the year.

THE PARKS OF THE NATION'S CAPITAL

The National Capital Parks, which together have the status of a field area of the National Park System, present problems and are the locale of events which differ materially from those of other areas administered by the Service. The sense of proprietorship felt toward the capital city by Americans everywhere extends to these parks; as many major events of the year indicate, they are something more than a metropolitan park system.

Memorial Bridge Equestrian Statues.—Fulfillment of efforts to complete the ornamentation of the District of Columbia approaches to the Arlington Memorial Bridge was marked by ceremonies last September when four heroic equestrian statues were dedicated on the Memorial Bridge Plaza. The statues had been cast in Italy as a gift to the people of the United States from the people of Italy. The President of the United States and His Excellency Alcide de Gasperi, Prime Minister of Italy, participated in the ceremonies.

The White House.—Prior to reoccupancy of the White House in March, after renovation, the Office of National Capital Parks restored

and improved the lawn areas surrounding the Executive Mansion. Temporary buildings erected in connection with the restoration work were removed. Other work included a major planting of boxwood on the north grounds, replanting of the east and west gardens on the south side of the mansion, introduction of an azalea garden, moving and planting several large trees, and resodding of approximately 4 acres of lawn.

Mahatma Gandhi Memorial.—The National Commission of Fine Arts approved a site, not to exceed 6 acres, in Barnard Hill Park for the Mahatma Gandhi Memorial, in accordance with an act of the Eighty-first Congress. The India League of America, sponsors of the memorial, plan to erect a memorial building containing an auditorium, library, and museum.

The Netherlands Gift.—On April 4, Queen Juliana of the Netherlands, at ceremonies held in Meridian Hill Park, made a token presentation of a 32-bell carillon to the people of the United States in behalf of the people of the Netherlands. The gift was accepted by the President of the United States. The permanent carillon of 49 bells is now being cast in the Netherlands. A permanent site for the bells has not yet been chosen.

A New Park, and Other Matters.—By transfer from the Department of Agriculture, Blue Pond Park was added to the National Capital Parks system. In its 380 acres, a stream valley and lake give it good park development possibilities. Lying north of the National Agricultural Research Center, it is within a mile of the Baltimore-Washington Parkway. * * * Preliminary steps have been taken for transfer of complete control of the Carter Barron Amphitheater, in Rock Creek Park, from the Sesquicentennial Commission to National Capital Parks. A fund of \$200,000 from the Commission's appropriation, to be used to complete the facility, was also authorized. * * * National Capital Parks and the Trees and Parking Division of the District of Columbia government, working jointly, discovered 470 cases of Dutch elm disease in the District during 1951; 65 were on park lands. The use of DDT spray and removal of infected trees continue to be the principal methods of control. Though the number of diseased trees has increased rapidly since the first was discovered in 1947, the horticultural staff predicts a decrease in 1952.

STORM, SNOW, AND FLOOD

On September 1, 1951, a cloudburst caused one of the most severe flash floods in the history of the Great Smoky Mountains. The Newfound Gap Highway was washed out in five places, and completely destroyed in two. The Alum Cave trail to Mount LeConte was demolished. There were extensive landslides on the slopes of Mount

LeConte. Both bridges into the Sugarlands maintenance area were washed out and had to be repaired before road-repair equipment could be taken out. The Jim Carr Grist Mill, of great interest to visitors, was washed away. Much other damage was done. Miraculously, no park visitors were injured. The Newfound Gap Road, opened for through travel 8 days after the flood, is now being completely repaired. Additional severe damage was caused by rain and wind on three occasions during March.

The Cascade Mountain, Sierra Nevada, and Rocky Mountain regions all had extraordinarily heavy snowfall last winter. At Lassen Volcanic National Park, 224 inches of snow piled up during a 28-day period. Mesa Verde had a winter of record severity. At Badger Pass, in Yosemite, the snow depth reached 17 feet. Snowfall in Sequoia and Kings Canyon exceeded all previous records. On March 20, the depth at Crater Lake headquarters was 221 inches, also a new record. The snow pack and water content in the higher elevations at Rocky Mountain exceeded all previous records.

The National Park Service was put to more than usual expense in keeping park roads open in the areas of heavy snow. Though much energy was expended—at considerable cost—on removing snow from roofs, many Park Service and concessioner structures suffered serious damage.

Rain-makers claim credit for the greatly increased amount of rainfall and snowfall in southern Utah, the effects of which were highly beneficial to Bryce Canyon and Zion National Parks. Increased precipitation throughout much of the Southwest after a long and severe drouth resulted in extraordinarily fine displays of spring flowers in many of the southwestern areas administered by the National Park Service.

NOTES OF INTEREST

Kilauea Erupts.—The 18-year quiescence of Halemaumau, Kilauea Volcano fire-pit, was broken near midnight, June 27. The start of the eruption produced a molten fountain of lava 700 feet high. The eruption fissure, extending northeast-southwest across the fire-pit floor, became a curtain of fire; lava fountains played along its 3,000-foot length to a height of 400 feet. Within 30 minutes after the eruption began, the whole crater floor was a seething, boiling cauldron.

In the first 2½ days, 51,360 visitors were recorded. They posed serious traffic and safety problems. A predeveloped traffic pattern and highway sign program was put in operation immediately; successfully, too, since 70,000 visitors (up to June 30) came and saw without an accident. Most visitors came after dark, since the eruption showed up most spectacularly in the black of night.

Though a barricade was promptly established 10 feet back from the rim of Kilauea Crater, an acute safety problem developed because of the huge cracks behind spectators' vantage points. An elevated steel ramp, away from the unstable rim, has been suggested as a means of meeting this problem, likely to recur at any time.

River Trips in Dinosaur.—The controversy over Dinosaur National Monument dams has focused much public attention on that area. Many persons interested in determining for themselves the quality of the area have visited and explored it, including the taking of boat trips down the Green and Yampa canyons. Forty-five persons made such trips in the 1951 fiscal year, and approximately 120 in 1952.

Work done during the year now enables motorists to drive to Harpers Corner, offering a splendid view of the confluence of the rivers; the road to Pats Hole is also being improved.

Park Visitor Fatalities.—During the calendar year 1951 there were 2 visitor accident fatalities—1.13 per million visitors. Motor vehicle accidents took a toll of 23 lives, drownings 16, falls 2, and lightning 1. There were no mountain climbing fatalities.

Airplane Crashes.—The wreckage of a C-47 Air Force plane was discovered in Lassen Volcanic National Park on May 30. It was identified as one which had been en route from Spokane, Wash., to Travis Air Force Base on December 26, 1951. Army officials identified the bodies of three crew members and five military passengers. * * * A military plane crashed into the side of Mount Marathon, Glacier Bay National Monument, at about the 10,000-foot level on July 20, 1951, killing all on board. Because of the hazardous conditions, no attempt was made to remove the bodies.

SAFEGUARDING SPECIAL RESOURCES OF FEDERAL LANDS

Historical, archeological, and paleontological field research on lands under Interior Department jurisdiction may be undertaken only under permit issued by the Secretary of the Interior—a requirement of the Antiquities Act of 1906. It is, as it was intended to be, a major safeguard against "pot-hunting" and against the conduct of research by persons or groups not qualified to undertake it. Investigations of research projects and of the qualifications of those proposing to conduct them, in advance of permit issuance, are the responsibility of Departmental Archeologist Jesse L. Nusbaum, headquartered at the Region Three office of the National Park Service, in Santa Fe, N. Mex.

The increasingly high cost of conducting such research is the principal reason for a slight drop in number of projects during the 1952 fiscal year. There were 28 applications for Antiquities Act permits. One applicant was denied a permit for lack of qualification and, subse-

quently, multiple violations in anticipation of receiving a permit were investigated and confirmed by the Bureau of Land Management.

Field work was continued during the year under previously issued permits; on 14 projects work was resumed under permit renewal or was initiated under new permit on 24 projects. Two archeologic and nine paleontological programs were conducted in Big Bend, Everglades, Glacier, and Zion National Parks, and Arches, Badlands, Capitol Reef, Canyon de Chelly, Death Valley (four projects), Petrified Forest, and Rainbow Bridge National Monuments.

Participating in this active program were the Universities of Alaska, California, Colorado, Florida, Harvard, Michigan, Oregon, Southern California, Stanford, Texas, and Utah; museums include American Museum of Natural History, Arizona State, Frick Laboratory of the American Museum, Museum of New Mexico, National Museum of Canada, Peabody Museum of Harvard, and the Southwest Museum. Dr. Nusbaum has carried on such field inspections as funds would permit to assure conformity with permit requirements and approved field methods. There has also been constant effort to educate the public on the necessity of safeguarding surviving antiquities against damage or loss through pothunting, unscientific excavation and, in a wholesale scale, use of huge earth-moving equipment. Pending decision is Dr. Nusbaum's request that the West Coast Pipeline Company meet the cost of archeological survey and salvage excavation on Interior lands along the right-of-way of its projected 1,100-mile pipeline from West Texas to near Los Angeles.

Increases in population and industrial development in hitherto relatively isolated areas bring with them threats to the protection of rich archeological treasures, as, for example, in the San Juan Basin.

Cooperation with Canada.—Dr. Nusbaum, at the request of Canadian archeological authorities, advised them regarding the adoption in Canada of legislation similar to our 1906 Antiquities Act. His recent experience in salvage archeology in connection with construction of fuel pipelines was also made available to Canadian authorities for similar operations in Western Canada.

ANNUAL REPORT

of the DIRECTOR

NATIONAL PARK SERVICE

GENERAL LIBRARY

JUN 23 1954

UNIVERSITY OF GEORGIA

to the

SECRETARY OF THE INTERIOR

Reprint from the

ANNUAL REPORT OF THE SECRETARY

OF THE INTERIOR

for the Fiscal Year Ended June 30, 1953

Fiscal Year Ended June 30

1953



NATIONAL PARK SERVICE

Conrad L. Wirth, Director

The 1953 fiscal year will go down in national park annals as one of extremes. Progress on the Independence National Historical Park project; the start of land acquisition at Cape Hatteras National Seashore (the first Federal project of its kind) through the cooperation of both State and private sources; the advance made in rounding out Everglades National Park—these and other achievements make the year notable.

On the reverse side of the ledger is the physical protection and maintenance problem, which steadily gets more serious. The 1952 Annual Report of the National Park Service referred to the "patch-n-patch" method of maintenance in the National Park System which has of necessity been followed for a good many years, as emergency demands for funds and personnel have taken precedence. Now another year has passed and maintenance of the park areas has slipped still more. Facilities have further deteriorated and patching material is scarcer; less protection can be given visitors; and complaints concerning facilities have increased.

As was pointed out in hearings before the Appropriations Committee of the House of Representatives, the Service operated, during 1953, with 25 percent less manpower than it did in the 1941 fiscal year, yet had 10 percent more areas to maintain, far greater responsibilities, and more than twice the number of visitors to be protected and served.

The 1952 calendar year saw the largest travel in the history of the National Park System and now, at the end of the first 6 months of 1953, travel is again soaring. This increased travel still further adds to the workload of providing for visitors; and the facilities are correspondingly reaching a stage of decline where patching will be of no avail.

Therefore, it should be stressed here that, when the overall Federal financial situation will permit, steps should be taken promptly to in-

crease the man-hours of employment to a point where the public can receive adequate protection and assistance; to secure adequate equipment; and to bring facilities and developments necessary for properly safeguarding the parks and the public to a sound basis.

No mention of the manpower shortage would be complete without a tribute to the loyalty of the field employees of the Service, upon whom rests the burden of protection and maintenance. The moral of national park personnel has been a matter of pride through all the years of Service existence, and the men and women engaged in park work will continue to do their utmost in behalf of the parks, the visitors, and the people of the United States to whom the parks belong.

NATIONAL PARK SERVICE CONFERENCE

The Areas Operations Conference, held in Glacier National Park September 4 to 10, was the 21st national park conference. It was a very successful meeting, attended by 158 Service employees, principally superintendents and regional and Washington office personnel. As the name of the conference indicates, its theme was the study of area operational problems and needs, and the working out, where practicable, of solutions of specific problems.

To expedite action, the conference was broken down into six panels, each covering a grouping of allied subjects. The foremen of these panels reported to the general assembly, presenting resolutions for discussion and action. Of the 95 recommendations made by the superintendents relating to the policies and work of the Service, 87 were approved and put into effect, 3 were disapproved, and the others taken under advisement.

During the conference the superintendents' wives were asked to make a survey of housing conditions in the parks, and their report submitted this spring, revealed some distressing housing conditions for Service employees—conditions that must be improved as rapidly as funds for this purpose can be secured. The wives of Service personnel constitute an important part of the National Park Service itself, and their handling of this survey assignment reflects the intelligent, loyal, and capable character of Service personnel as a whole.

ADVISORY BOARD

The Advisory Board on National Parks, Historic Sites, Buildings and Monuments continued to give the Service invaluable advice and assistance. The vacancies created by the expiration of the terms of Charles G. Sauers, superintendent of the Cook County (Ill.) Forest Preserve, and Dr. Frank M. Setzler, head curator of anthropolog-

United States National Museum, on June 30, 1952, were filled early in the fiscal year by the appointment by the Secretary of the Interior of Horace M. Albright, long-time career man with the National Park Service and its director from 1929 to 1933 and now president of the United States Potash Co., and Dr. John O. Brew, director of the Peabody Museum of Archeology and Ethnology of Harvard University. The terms of Dr. Ralph W. Chaney, professor of paleontology of the University of California, and Tom Wallace, editor emeritus of the Louisville (Ky.) Times, expired June 30, 1953. The appointments of Walter L. Huber, civil engineer and conservationist, of San Francisco, and Harold S. Wagner, director-secretary of the Akron (Ohio) Metropolitan Park System, to fill these vacancies were approved, to be effective July 1, 1953.

TRAVEL

The upward trend of travel that has marked the postwar years continued, with 42,299,836 visitors recorded at the end of the 1952 calendar year as against 37,106,440 in 1951. Reports for the first 6 months of 1953 show a 14-percent increase over the same period a year ago, and all indications point to another recordbreaking year. In 1952 the travel year was changed from October 1-September 30 to a calendar-year basis, and records for the preceding 10 years were revised to the same basis for comparative purposes.

In addition to visitors reported above, 5,079,602 users of the metropolitan parks of Washington were recorded during 1952.

Travel surveys.—The Service continued to cooperate with the Bureau of Public Roads and with State authorities in making travel surveys in the national parks. Under such auspices two are currently under way. Fieldwork on the Shenandoah National Park survey, being conducted by the Virginia Department of Highways was completed last October. The analysis of the data obtained by personal interviews with park visitors and the preparation of a report of findings have not yet been completed. Fieldwork on the Yosemite National Park travel survey was commenced in January. The California Division of Highways is participating in the survey. A sampling of winter and spring use, based upon questionnaires executed by park visitors, has been completed. Samples will also be made of summer and fall use.

ACCOMMODATIONS FOR THE PUBLIC

Excellent progress was made during the year in concluding new concession contracts and in auditing concessioners' reports. Although

operating with a greatly limited staff—the result of low priorities in job filling—the auditing work is rapidly approaching a current basis, and the progress being made on the elimination of the backlog is even greater than estimated at the beginning of the audit program. The value of Service audits was reflected in the improvement of reports submitted during the year, less than 20 percent being in need of material corrections, or additional data as against more than 80 percent 2 years ago.

Contracts.—The Service entered into 17 new concession contracts, including a 1-year operating agreement with the Rainier National Park Co. to operate the facilities in Mount Rainier National Park that were recently purchased by the Government. Five contracts were extended to provide time for contract negotiations or for the study of operating or development problems that must be resolved before new contracts can be prepared. Extensions of two contracts were submitted to the concessioners but had not been accepted by June 30. Preliminary negotiations were completed on 10 proposed new contracts. Fifteen subconcession agreements covering a wide variety of incidental services were prepared.

Boat concessioner, Statue of Liberty.—B. B. Wills, boat-transportation concessioner at the Statue of Liberty National Monument, filed an appeal to the Secretary from the decisions reached after Service audit of his operations. His contract will expire September 30, 1953.

Proposed employment of management consulting firm.—The scope of an industrial and management survey has been defined, so that, if funds can be obtained, a contract can be prepared to complete a study by an outside firm competent to advise on all phases of the concessions program.

Improvements and extensions of concession facilities.—Construction of the largest single concession development since World War I was authorized in a contract between the Grand Teton Lodge & Transportation Co. and the Department of the Interior, to provide visitors' facilities at Jackson Lake Lodge and at Colter Bay, in Grand Teton National Park. During the year construction was begun on the Jackson Lake development. Laurance S. Rockefeller, chairman of the board of the company, has stated that the company will invest \$5 million in the development. The Government in turn will expend \$1,103,400 for the installation of water, sewer, and electrical distribution lines, campgrounds, and roads and parking areas. The lodge at the south end of Jackson Lake will provide 256 rooms with bath in multiple-room cabins and 46 rooms with bath in the lodge structure, in addition to dining rooms, assembly hall, lobby, large lounge, fountain, and numerous shops. Long-range plans call for the addition to the development of cabins containing 200 rooms with bath. The Colter Bay

facilities will include overnight accommodations in cabins, camps, and trailer courts for an estimated 4,000 to 5,000 people. Cafeteria service, stores, and other essential facilities will be provided in this location.

Also important among concession developments were completion of a unit of 30 rooms for visitors at Yosemite Lodge in Yosemite National Park; extensive remodeling of the Glacier Park and Many Glacier Hotels in Glacier National Park; breaking ground for an extension to Volcano House in Hawaii National Park; new construction and remodeling of duplex cabins in Lassen Volcanic National Park; and the beginning of construction on a trailer court at Lake Mead National Recreation Area. This is the first concessioner-operated trailer court to be constructed in an area of the National Park System, but it is believed it should be successful financially and of real service to the public. The first developments at Lake Mead will have approximately 120 trailer sites, with substantial expansion space. These developments and the trailer court to be established in Grand Teton National Park may point the way to similar developments in other park areas.

SAFETY MEASURES

Every effort was made during the year to insure greater visitor safety through careful planning, training of personnel, and cooperation with such agencies as the Public Health Service. There was a small decrease in visitor fatalities, from a rate of 1.13 per million visitors in the 1951 calendar year to 1.04 in 1952. Of the 44 fatalities reported, 18 were from motor-vehicle accidents and 17 from drownings. These 2 causes have predominated in visitor fatalities during the past 6 years.

Avalanche kills Service employees.—It is reported with regret that two employees—George H. Beaton and William A. Whitford—lost their lives in an avalanche that occurred in Glacier National Park in May 1953 while they were working on snow removal on the Going-to-the-Sun Highway.

Park Service employees have participated in Forest Service avalanche-training conferences, in which one of the problems studied is the anticipation of avalanches.

CHANGES IN THE NATIONAL PARK SYSTEM

The year 1953 was outstanding in accomplishments toward rounding out the land and water resources of areas of the National Park System. Some of the projects on which the Service has been working for nearly 20 years were either completed or major progress was made toward completion.

New areas.—Two new areas—Coronado National Memorial in Arizona (2,745 acres) and Fort Caroline National Memorial in Florida (108 acres)—were established. The lands for the Fort Caroline are were purchased with a fund of \$37,199 donated by Representative Charles E. Bennett, of Florida, and friends, and with a small supplemental amount of Federal funds.

At the end of the year the National Park System consisted of 17 units, and the Service administered 5 additional areas under cooperative agreements with other agencies.

The land program.—In accordance with the long-range program of acquiring non-Federal lands within approved park boundaries, approximately 83,000 acres of such lands were brought into the National Park System by purchase, exchange, or donation, or were placed under contract for purchase. In addition, some 12,000 acres of non-Federal inholdings were eliminated by a change in boundaries at Badlands National Monument.

Among the major items of the land program were the following:

Of the \$2,000,000 donated by the State of Florida in 1947 for the purchase of some 390,000 acres of privately owned land in Everglades National Park, about \$325,000 remains to pay final awards on a few tracts for which appeals have been entered and to acquire non-Federal lands northwest of the present park but within the boundary authorized by the act of June 30, 1934. Most of the 390,000 acres were acquired prior to the 1953 fiscal year.

At the close of the year agreements had been reached with the State of Montana as to timber value and amount and location of selected grazing lands in eastern Montana involved in the exchange for approximately 9,300 acres of State-owned land in Glacier National Park.

Important progress was made toward completion of land acquisition for the Independence National Historical Park project. The Congress has increased the authorization of funds for this purpose by \$3,265,000 to a total of \$7,700,000. With these additional funds it is expected that all properties within the project as authorized by the act of June 28, 1948, with the exception of the Irwin Building (a modern office building not at present proposed for acquisition), will be acquired.

All lands within the West Virginia portion of the proposed Harper Ferry National Monument were tendered to the Federal Government by the State. Maryland has appropriated \$40,000 to acquire its portion of the project and is now in process of acquiring some 800 acres.

All but one parcel in Virginia of the lands necessary for establishment of the Cumberland Gap National Historical Park in Virginia, Kentucky, and Tennessee, have been acquired. At the end of the year

the three States were about ready to donate to the Federal Government some 20,000 acres for the project. These have been acquired during the past 8 years.

On January 6 the President signed a proclamation adding approximately 47,754 acres to Olympic National Park. These lands are in the so-called Bogachiel strip—a narrow corridor of national forest lands extending into the park—and in the ocean strip and the Queets corridor, two units which had been acquired by the Federal Government several years before for addition to the park.

The historic Old Stone House in Washington's Georgetown section was acquired by condemnation and purchase at a cost of \$90,000, for addition to the National Capital parks.

Some 1,300 acres of important parcels of privately owned lands in various areas of the System, chiefly Glacier and Rocky Mountain National Parks, were purchased.

Approximately 1,400 acres of land for Acadia National Park were donated by John D. Rockefeller, Jr.; 2,000 acres for the Natchez Trace Parkway by the State of Mississippi; 204 acres for Effigy Mounds National Monument by the State of Iowa; and 60 acres for the Home of Franklin D. Roosevelt National Historic Site by the Franklin D. Roosevelt Foundation.

Exchanges, on an equal-value basis, of approximately 9,400 acres in Joshua Tree National Monument, 3,400 acres in Theodore Roosevelt National Memorial Park, and 120 acres in Arches National Monument were effected. In addition, 470 acres in Olympic National Park and 290 acres in Yosemite National Park were exchanged for wind-thrown or otherwise salvable timber on Federal lands in these parks. The Veterans' Administration transferred 62 acres for addition to the Blue Ridge Parkway. By Presidential proclamation dated November 20, 1952, 81 acres of public domain were added to Hovenweep National Monument.

Cape Hatteras National Seashore project.—Perhaps the most outstanding achievement of the year in the field of land acquisition was the progress made toward fulfillment of the Cape Hatteras National Seashore project in North Carolina. Following the gift of \$618,000 by the Avalon and Old Dominion Foundations shortly before the close of the 1952 fiscal year, to match an equal amount provided by the State of North Carolina for the purchase of lands within the approved boundaries of the Cape Hatteras project, the land-acquisition program was pushed vigorously. On December 22, 1952, the State turned over to the Federal Government approximately 6,490 acres of previously State-owned lands. These lands, with the 5,880 acres in the Pea Island National Wildlife Refuge (which is a part of the seashore area) and 44 acres in the former Cape Hatteras Lighthouse Reserva-

tion that had been in the custody of the National Park Service brought the total lands within the Hatteras area in Federal ownership to 12,414 acres. The Secretary of the Interior thereupon instructed the National Park Service to assume jurisdiction of these lands, since the act of Congress establishing the national seashore had authorized the Secretary to accept, for administration, protection and development, a minimum of 10,000 acres within the authorized boundaries. At the end of the year a large percentage of the approximately 15,000 acres still to be acquired was under negotiation and litigation.

Water resources, rights, and claims.—The Service is attempting through long-range planning, to secure all essential privately owned rights to water resources in the areas it administers, to assure appropriate protection, and to provide for adequate fresh water for anticipated public use in future years. While the funds appropriated to acquire these privately owned rights have been small, progress was made during the year toward securing essential rights needed for public use.

In the areas administered by the National Park Service there are some 10,500 miles of rivers and streams; and the water surface covers 2,445,200 acres, or about 10 percent of the total area. Throughout these areas there are approximately 350 federally appropriative water rights and more than 300 privately owned rights yet to be acquired.

Special and defense uses of park lands.—On June 30, 1953, approximately 1,600 special-use permits and 52 defense-use permits were in force.

Of the special-use permits, approximately 650 were on the Blue Ridge and Natchez Trace Parkways, 400 on historical areas, and 100 on national recreation areas. They cover primarily small units of land being farmed to maintain historical and rural scenes and vistas, and to protect the soil; also continued use of small buildings, minimum access facilities to nearby private properties and justified utility lines.

Of 52 defense-use permits, 11 are for lands and facilities used in World War II. In considering requests for defense permits, the Service was able, apparently without material handicap to the requesting agencies, to prevent uses that would seriously affect park values.

The Atomic Energy Commission's explorations in Capitol Reef National Monument, authorized in 1952, were begun. Field geologists of the Commission also requested permission to explore Big Bend and Grand Canyon National Parks and Petrified Forest National Monument for uranium. Permission was given for the survey of Big Bend with Geiger counters; the other requests are currently under study.

RECREATIONAL OPPORTUNITIES

In its cooperation with other agencies, the National Park Service works closely with the Army Corps of Engineers and the Bureau of Reclamation in appraising the recreational value of reservoirs built by these two agencies. To insure that reclamation projects will provide for the development of recreational opportunities, the basic plans of all major reclamation projects include provisions for outdoor recreation where there is a national interest.

Virtually every reservoir built today is stocked with fish through the cooperation of State authorities or agencies of the Federal Government. Similarly, these man-made lakes offer opportunities for boating, bathing, and picnicking. This extra recreational resource has a very substantial economic value in addition to the intangible values of health and human enjoyment.

DAM SITES

Renewed efforts were being made to have authorized the Mining City Dam on the Green River in Kentucky, which probably would cause extensive flooding of portions of Mammoth Cave. Cooperative efforts of the Geological Survey and the National Park Service resulted in undertaking a preliminary hydrological survey of these subterranean waters, but results are, as yet, too meager to determine what the full impact of a dam at the Mining City site would be.

In the meantime, the Corps has concentrated its efforts on studies of flood control and navigation structures downstream from the Mining City Dam site, which would not affect the protection of the park.

Groups in the Northwest reactivated the plan to construct Glacier View Dam, a project which would flood nearly 20,000 acres of Glacier National Park. In Florida, efforts were underway by land and oil interests to block the authorized additions to Everglades National Park. The Service is making further scientific studies of the lands in question to determine whether boundary adjustments would be in the public interest.

RIVER BASIN STUDIES

The Service continued its cooperation with the Bureau of Reclamation and the Corps of Engineers in planning for the recreation development of reservoir areas. Twenty-two reconnaissance and planning reports and 39 preliminary field surveys and investigations were made for the Bureau and the Corps. Intensive studies were made in cooperation with interagency committees, consisting of representatives of Federal resources planning agencies and the States, to work out plans for the comprehensive resources development of the Missouri, Columbia, Central Valley, and Arkansas-White-Red River Basins, and the New England-New York region.

At the suggestion of the Congress, and in the interest of economy and expediency, the Service enlisted the aid of educational institutions in compiling and analyzing existing recreation facilities within these major basins, the recreation habits, preferences, and needs of the people, and the economic effect of recreation on local communities. Research contracts were made with the University of Oklahoma, the National Recreation School, the Bureau of Business Research of the University of Washington, the University of Florida, and the Statistical Laboratory of Iowa State College. Results of these studies which will be completed within the next 2 or 3 years and which then will have covered approximately half of the continental United States, will be invaluable in formulating the national recreation plan which the Service was authorized and directed to develop pursuant to the Park, Parkway and Recreational-Area Study Act of 1936.

RESERVOIR MANAGEMENT PLANNING

The Service continued to act as agent for the Bureau of Reclamation in negotiating agreements with State, county, and local agencies for the administration and maintenance of reservoir recreation areas of less than national significance. Progress in this direction during the year included the negotiation of agreements with the State of Washington for four reservoirs, the largest of them being the Equalizing Reservoir of the Columbia Basin project. Cachuma Reservoir in California, was turned over to the county of Santa Barbara, and South Dakota took over the administration of Shadegill Reservoir. At the end of the year negotiations were progressing satisfactorily for local management of several units of the Colorado-Big Thompson project, and efforts to interest the States of Wyoming, Montana, and California in the administration of reservoir recreation areas were meeting with promising response. The addition of these 3 States to the roster of Western States administering reservoir recreation areas will bring 9 of the 17 Western States into active participation in the reservoir recreation-area management-planning program.

STATE AND TERRITORIAL COOPERATION

The Service continued to assist other Federal, State, and local agencies concerned with parks and recreation by (1) serving as a central clearinghouse for information, (2) working with other agencies such as the National Conference on State Parks, American Institute of Park Executives, American Camping Association, Great Lakes Park Training Institute, and the Federal Inter-Agency Committee on Recreation, and (3) furnishing advisory and consultative assistance to the States upon request.

State Park Statistics, 1952, issued during the year, contains tabulations of State park expenditures, sources of funds, attendance, personnel, and land acquisition. The American Planning and Civic Association, under contract with the Service, undertook to bring up to date the 1936 Digest of Laws Relating to State Parks. Under provisions of an agreement approved by the Assistant Secretary on January 22, the Service cooperated with the Bureau of Land Management in studies to determine the scenic, scientific, historical, archeological, and other recreation resources on public lands and in preparation of plans for their protection, utilization, and administration.

The Alaska Recreation Survey, initiated in 1950, is now about 80 percent complete. The first volume of the covering report, Part I, Volume I: Economic Aspects of Recreation in Alaska, was issued in the spring of 1953. An extensive study of passenger travel, with special reference to tourists, was completed by the University of Washington under contract; a survey of community recreation in Alaska was made by the National Recreation School, also under contract.

An appraisal of the scientific values of Katmai National Monument is under way this summer, in cooperation with the Office of Naval Research Office of the Quartermaster General, Geological Survey, Public Health Service, and several universities. A somewhat similar study of an Arctic wilderness area north of the Brooks Range and extending east to the Canadian border was also initiated in cooperation with the Office of Naval Research and the Geological Survey.

FEDERAL REAL-PROPERTY DISPOSAL

Twelve applications for the acquisition of surplus Federal lands for public park, recreation, and historic monument use were processed by the Service during the year under provisions of the act of June 10, 1948. This act provides that the Department of the Interior shall cooperate with the General Services Administration in the disposition of such lands to State and municipal agencies. Since the program was inaugurated, 43 applications have been processed. These have involved 27,561 acres of land and 585 buildings. A total of \$1,234,349 has been returned to the United States Treasury under this activity.

COMMUNITY PLANNING

A master plan and report were prepared for the Folsom Reservoir and environs, in California, at the request of the Tricounty Planning Commission. The report included a master plan for a 100-square-mile district which contains portions of 3 counties. Recommendations consisted of a proposed highway and recreation plan as well as suggested zoning, subdivision control, and building code regulations.

A report on Park and Recreation Areas, Territory of Guam, was prepared at the request of the Governor of Guam. This report contains detailed recommendations for school playgrounds, parks and parkways, waterfront development, reforestation, and a statute for the protection of natural and historic sites and archeological remains.

At the request of the city manager of Boulder City, Nev., three subdivision plans were prepared for the extension of the town. Also, zoning map and ordinance and subdivision regulations were prepared and discussed with the local planning commission.

Planning consulting service was given upon request by the Department of Conservation of Kentucky for the improvement of the State capitol grounds and other State building sites in Frankfort.

An interim zoning ordinance for Harpers Ferry, W. Va., was prepared at the request of Mayor Gilbert E. Perry to protect the environment of the national monument being established there.

IN THE NATURAL-HISTORY FIELD

The need for interpretive services in areas of primarily scenic and scientific interest continued to expand. In the 1952 calendar year interpretive activities in 53 such areas served 17,143,947 people, compared to 14,451,996 in the 1951 fiscal year. The word "people" is used here in the sense of "contacts," since some people received naturalist services of one type or another at several points in a park or in several parks.

Visual aids and self-guiding devices were increasingly used to supplement personal services which, through lack of sufficient personnel, could not be extended to all interested individuals. In Shenandoah National Park, for instance, the two-man naturalist staff could make personal contact with a very small percentage of the million and a half visitors to that area.

Visual aids in interpretive program.—During the year semi-automatic orientation slide talks were presented at Wind Cave, Acadia and Crater Lake National Parks and Bandelier National Monument. To further natural and historical interpretation, three slide talks with accompanying manuscripts were developed.

Copies of 2 motion pictures of Dinosaur National Monument and of 1 film of Hawaii volcanic activity were acquired for addition to the extremely limited film supply in the Washington office. Other films produced independently or in cooperation with the Service that emphasize the natural values of park areas include the Lange film on Mount Rainier National Park, the Couillard film on Great Smoky Mountains National Park, and Olympic Elk, Bear Country, and Prowlers of the Everglades, released or completed during the year by the Walt Disney Studio as part of the True Life Adventure Series.

Wildlife investigations.—Conditions on the northern winter range in Yellowstone National Park and in the Gallatin drainage were kept under surveillance. In both areas elk have been far too numerous for many years. An investigation was continued into the food habits, migrations, distribution, and other characteristics of the Roosevelt elk in Olympic National Park. Studies of elk movements in and around Grand Teton National Park were continued in cooperation with the Wyoming Game and Fish Commission, as required by Public Law 787. Checks were made on the use of the range by bison at Wind Cave and Yellowstone, and on bison damage to thermal features in the latter area.

Information on the trend of white-tailed deer populations in and around Acadia National Park was kept current. Studies of the effect of mule deer on forage plants in Mesa Verde and Zion National Parks were continued by the Fish and Wildlife Service. In the latter park, systematic data on movements of deer to and from winter range on the floor of Zion Canyon were obtained for the first time by the local staff.

Close watch was maintained on the bighorns of the northern part of Yellowstone National Park, where too many of these animals are in poor condition. For the second successive year, weather conditions thwarted attempts to make an aerial census of Dall sheep in Mount McKinley National Park. However, all evidence indicates that the lamb "crops" were good and survival of younger animals over the winter was high. A study was made of the moose of Isle Royale National Park, with special reference to the food supply. Information also was obtained regarding the numbers, distribution, and habits of the small population of wolves in this island park. More data were obtained on the life history and movements of the cougar of Olympic National Park.

Biological investigations were made of Katmai National Monument and of a proposed wilderness reserve in northeastern Alaska.

Studies were made of prairie-dog colonies in Wind Cave National Park and Theodore Roosevelt National Memorial Park. With the aid of other Government agencies, considerable information was gathered on recent records of the black-footed ferret.

With the cooperation of the Fish and Wildlife Service in supplying a plane and pilot, an aerial count of trumpeter swans was made in Yellowstone National Park and vicinity. The count of 74 adults and 17 cygnets was approximately the same as had been secured for several years.

Wildlife and food supply.—The national parks and more extensive national monuments are preserved as natural areas and wildlife populations are treated in conformity with this policy. In several instances,

however, loss of normal biological controls has forced the National Park Service to introduce management measures. In this category is the northern Yellowstone elk herd, which entered the past winter with about 9,600 head, although the carrying capacity of the winter range probably is less than 5,000. The mild season allowed the elk to forage at unusually high elevations, and hunter kill north of the park was estimated at only 100 animals. During late winter, only limited trapping in the park was practicable and 166 elk were shipped for restocking 5 areas in Montana. Requests for 77 additional animals had to remain unfilled. This strengthens previous conclusions that live trapping is not the answer to the problem.

Control measures to restore the limited winter range in the Estes Park region of Rocky Mountain National Park were continued. At Wind Cave National Park the bison population was reduced to 400 head when 150 animals were driven into the adjoining Custer State Park and butchered by State officials, who stored an agreed portion of the meat for use during the year by Indians. Attempts to deal in a similar manner with a large excess of Wind Cave elk were unsuccessful.

Elk control under Public Law 787.—Again last year areas in the northern portion of Grand Teton National Park were opened to controlled reduction of elk. The Wyoming Game and Fish Commission desired a kill of 600 elk in the park, and 1,200 "openings" of deputy park rangers were established for applicants who held Wyoming hunting licenses. Ten hundred and fifty-five hunters applied to the State and were deputized, but only 455 applied for park permits. They killed only 27 elk—a minor contribution to the total kill of about 3,500 elk for the herd as a whole.

Wildlife restoration activities.—New outbreaks of the foot-and-mouth disease in Mexico resulted in renewal of the ban on importation of cloven-hoofed mammals from that country and thus interfered with the progress of reestablishing bighorns in Big Bend National Park. Four donated wolves were released in Isle Royale National Park in aid of conservation of a vanishing species. The animals, however, had been too long in confinement, and it became necessary to remove three of them. Meanwhile, the presence of wolves that had reached the park by natural means was detected.

Bat-banding project.—A banding project was started at Carlsbad Caverns National Park in an attempt to get authentic information as to the habits of the Mexican free-tailed bat. One bat so banded was recovered in Atingo, Mexico. According to the Fish and Wildlife Service, this is the longest recovery recorded for a banded bat.

Wildlife policies questioned.—The "no hunting" policy which has reserved wildlife in the National Park System for the camera "hunter"

nd for general public enjoyment under natural conditions came under considerable fire. The International Association of Game, Fish, and Conservation Commissioners has studied legislation to require that surplus wildlife must be destroyed, when necessary, by State-licensed hunters only. Another organization is studying the advisability of public hunting as a means of solving the northern Yellowstone elk problem; and the Wyoming Legislature has memorialized Congress to permit hunting of elk in Yellowstone National Park under direction of the Wyoming Game and Fish Commission. Efforts are being exerted to admit hunters to Great Smoky Mountains National Park to kill bears when the latter are believed to have molested livestock outside the park.

Even the smaller animals are threatened. The South Dakota State Legislature has requested that prairie dogs "and similar undesirable animals" be exterminated from the national parks. In normal numbers, these animals are important in the preservation of the historic scene, are indispensable to a healthy native plant and animal community, and are of unfailing interest to visitors. Conservation organizations unanimously endorse the basic policies established by the Congress of preserving the parks and the wildlife therein.

National park fisheries.—Angling pressure continued to increase in most of the parks, and in a few cases further restrictions were imposed to preserve the basic stocks of fish. One of the most serious problems concerns the black-spotted trout of Yellowstone Lake and its tributaries. Continued studies by the Fish and Wildlife Service revealed a further decline in the fish population, in spawn production, and in angling success. In order to reverse this trend, both season length and creel limits were reduced. A larger escapement of trout for natural spawning has been permitted and few eggs are being collected for artificial propagation.

Stocking is declining in importance as a means of maintaining good fishing. In 1952, only 5,637,000 fingerlings and 721,000 fry and eyed eggs, mostly furnished by the States, were planted in the waters of 15 areas administered by the National Park Service. About 25 percent fewer fish will be planted in Glacier, Yellowstone, and Yosemite National Parks in 1953.

An intensive fish investigation in Yosemite National Park was made possible through a donation of \$2,500 by Mrs. Mary Tresidder. The investigation of all the principal waters of the park may be a guide for studies elsewhere.

Geologic studies.—Liaison was maintained with the Geological Survey, the National Museum, State geological bureaus, and various institutions, organizations, and individuals interested in or engaged upon geological, mineralogical, or paleontological investigations within the

National Park System. Significant accomplishments in this field were (1) completion of geological field studies in Great Smoky Mountains National Park, (2) major progress in aerial mapping and ground-water investigation of Carlsbad Caverns National Park, (3) initiation of hydrological and sedimentation investigations at Mammoth Cave National Park, (4) furtherance of geomorphic studies in the Grand Teton-Jackson Hole region, and (5) the setting up of major geological investigations in Katmai National Monument.

HISTORY AND ARCHEOLOGY

The Service continued its efforts to give maximum protection to the historic areas under its jurisdiction, to the end that the people of the United States might see and enjoy the places and sites that form a living history of this portion of the continent going back far into prehistoric times. The two new areas added to the System in the 1953 fiscal year, mentioned elsewhere, both were of historical significance.

The 123 historical and archeological areas in the National Park System reported a total of 15,670,874 visitors, over 8,000,000 receiving some form of personal assistance from Service personnel.

To complement the limited personal services available to this record-breaking group of visitors, audiovisual aids were used. These consisted of such aids as films, recordings, automatic recording and projecting auditory machines, and magnetic tapes synchronized with automatic slide projectors. A new synchronized tape and slide projector was installed in the museum building at Morristown National Historical Park to assist visitors to visualize and understand this historic area, once Washington's headquarters. A similar tape and slide presentation was used at Bandelier National Monument. At the Washington Monument in the National Capital a new type of compact automatic recording and projecting machine was installed to give a brief welcome and explain the significance of this great shaft. A recorded talk was prepared for use in the public-address system on the boat that carries visitors to the Statue of Liberty National Monument.

Donations.—Again space is lacking to acknowledge individually the many other gifts from public-spirited citizens of museum pieces, authentic furnishings for historic houses, books, manuscripts, pictures, and funds received during the year. Of special importance were the following: The noted Lloyd W. Smith collection of books, manuscripts, works of art, and other historic objects relating to the American Revolution, donated to Morristown National Historical Park by Lloyd W. Smith (upon condition that the Federal Government arrange for suitable housing and display of the collection); \$35,000

ered by Glass Crafts of America for the reconstruction of the glass factory used by the early settlers at Jamestown and for its interpretation to the public; and the W. C. Storrick Civil War collection of over 200 volumes pertaining primarily to the Battle of Gettysburg, which was donated to the Gettysburg National Military Park.

Preservation and protection.—Preserving the historical areas of the Service from undesirable encroachments requires constant vigilance. Fortunately the threat to Manassas National Battlefield Park was partially alleviated by the appropriation of \$50,000 by the State of New York for the purchase of needed lands in the area of the New York monuments. This sum is now being expended to good advantage.

The Service has gone forward with condemnation of lands in the historic Redoubt 10 area in the heart of the Yorktown Battlefield. It has also refused an access road to private interests at Guilford Courthouse National Military Park, where American troops took their final stand during the battle of March 15, 1781, since such a road would hinder the park program. Despite Service effort to prevent it, at the close of the year there was still an imminent possibility that industrial use would be made of the area between the two separated parts of Chalmette National Historical Park. This would divide the park permanently and destroy the heart of the battlefield.

Historic Hampton structure acquired.—A gift of \$14,000 from the Avalon Foundation made possible the purchase of a small tract of land and two carriage houses or barns to be added to the Hampton National Historic Site. These structures were needed both to complete the historical picture of life at Hampton and to protect the historic site from undesirable encroachments. Part of the donated funds will be used to stabilize the carriage houses.

Restoration, stabilization, and rehabilitation.—The historic Burnside Bridge at Antietam National Battlefield Site, which partially collapsed in January, was promptly repaired and stabilized. The General Schuyler House, a part of Saratoga National Historical Park, was repaired and rehabilitated. A local patriotic group has offered to undertake the task of furnishing this building and interpreting it to visitors.

Ruins stabilization was conducted at Mesa Verde National Park and Hovenweep, Aztec Ruins, Chaco Canyon, and Wupatki National Monuments at a combined cost of \$46,500. The historic Mormon fort

Pipe Spring National Monument was rehabilitated, and minor repairs were made at Tumacacori National Monument.

In the East, rehabilitation of the Hopewell Furnace Works was continued, and work commenced on the rehabilitation of the courtyard and interior of Castillo de San Marcos. Other repair work was

done on the Old Custom House and the Hawkes House at Salem Maritime National Historic Site, on Fort Sumter, and on pioneer structures in the Great Smoky Mountains National Park. The cost of this work in the East was approximately \$76,000.

Assistance in safeguarding our national heritage.—During the past year the Service appraised the historic value of numerous places suggested as of national importance in the historic scene. Five such proposals were handled on behalf of the President, 28 involving historic areas on behalf of Members of Congress, and 53 involving 46 areas suggested by individuals or patriotic organizations. Preliminary historical studies were also made of 43 congressional bills involving 34 proposed historic areas or memorials, and in many cases assistance was given in the preparation of reports to committees of the Congress. These involved both research and field studies. In addition, historical data were collected in connection with 3 bills directly affecting the Service of the historical areas in the National Park System.

With the assistance of Representative Charles E. Bennett, of Florida, the Service arranged a joint land and underwater survey and archeological salvage program of the site of the French settlement of 1564 at Fort Caroline on the St. Johns River. The Office of the Chief of Naval Operations supplied ships and divers for the underwater phases of the project, and the National Park Service handled the archeological work on land. The study indicated that the St. Johns River has destroyed the site and that memorial and museum treatment of the fort alone is possible. Establishment of the memorial is reported elsewhere.

Historic preservation in time of armed conflict.—Following receipt of a proposed International Convention for the Protection of Cultural Treasures in the Event of Armed Conflict, prepared by a conference of experts in Paris July 21 to August 14, 1952, discussions were held on this subject and other matters relating to the protection and preservation of historic sites, buildings, and objects with Dr. Van der Haagen, head of the Museum and Monuments Division of UNESCO. The next step will be consideration of the final draft of the proposed treaty, early in 1954, by an International Conference, to which Holland will act as host.

Cooperation was given the Department of State in connection with plans for assisting Israel, Lebanon, and Jordan in the preservation and interpretation of their historic heritage.

Historical field studies.—A number of important historical research studies, basic to the adequate physical or interpretive development of many areas in the National Park System, were conducted. Among these were studies in relation to the Spanish Colonial Period of

merican history, which touches many Service areas; the English Colonial Period, which ranges from Jamestown Island in Colonial National Historical Park to Fort Necessity National Battlefield Site; the Revolutionary War Period, including Independence National Historical Park project; the Civil War; commerce, industry, and agriculture to 1890; means of travel and communication, as exemplified by the Natchez Trace National Parkway; and the arts and sciences.

Archeological field studies.—Exceptional discoveries in the field of archeology were made in the areas of the National Park System. At Fort Necessity the remains of the original stockade erected by George Washington and burned by the French and Indians in 1754 were unearthed and positively identified. A series of studies at Fort Frederica disclosed much information on the original shape and details of the fort and further data on the town layout and town gate. The most recent discovery was of the foundation remains of the house of Benjamin Franklin at the Independence National Historical Park project.

Additional investigations yielded data on the presumed location of George Washington Carver's birthplace. Explorations were continued at Effigy Mounds National Monument and Isle Royale National Park to reveal the identity of prehistoric Indians there. Excavations in Grand Canyon National Park unearthed a small pueblo ruin on the edge of the canyon. Surveys and limited excavations were conducted at Mesa Verde National Park and Bandelier National Monument. The series of important archeological investigations at Fort Vancouver was concluded, but the Service continued to cooperate with the Washington State Parks and Recreation Commission in explorations of the sites of Fort Spokane and Fort Okanogan.

The National Park Service has continued to encourage utility companies to obtain assistance from research institutions in salvaging irreplaceable historic and archeological sites which occur in their construction projects. For example, the Service obtained excellent cooperation from the El Paso Natural Gas Co. for further salvaging of sites along its new Big Inch projects; and the Power and Utilities Engineering Bureau at San Francisco was assisted in cooperating with the University of California in archeological salvage work in Cherry Valley.

River basin archeology.—The Service continued to cooperate in the interagency archeological salvage program in conjunction with the Smithsonian Institution and other Federal and State agencies, including universities. Studies in the Missouri Basin by the Smithsonian and other cooperating agencies made valuable contributions to prehistory and frontier history which materially advanced knowledge of human occupation of the Great Plains.

The University of California contracted with the Service for investigations in the Nimbus and Red Bank Reservoirs in California; the Florida Historical Society contracted for a historical survey and the Florida State Museum for archeological excavations within the Jim Woodruff Reservoir in Georgia and Florida; and the University of Washington and the University of Oregon both have contracts calling for excavations in the Dalles Reservoir. Most of this work is programed for the current summer excavation season, and discoveries which greatly advance knowledge of cultural origins have already resulted. The Service also employed field archeologists to make investigations in the Dalles Reservoir and the Falcon and Whitney Reservoirs of Texas; to survey the Hartwell Reservoir in South Carolina and to excavate in the Jim Woodruff Reservoir. The Hudson's Bay Post of Fort Walla Walla, near present day Wallula, Wash., will be flooded in June by waters back of McNary Dam. Prior to its final disappearance the old fort was excavated by National Park Service archeologists and others. Whitman National Monument has many artifacts from the fort, and a very fine collection of English china ware, mostly Spode, is temporarily housed at Whitman College pending development of a museum at the monument.

Technical advice in military history field.—The Service continued to furnish technical information and advice in the field of military history to Federal, State, local, and private organizations. Fourteen requests for such assistance were received from State agencies, 2 from other Federal agencies, and 15 from private organizations. The requests ranged from identification of individual specimens in museum collections to advice for the Bureau of Internal Revenue on the classification of antique firearms for tax purposes; and from questions about bibliographic reference to the review of historical studies written for the Department of the Army and the preparation of plans for reconstructing cannon and carriages for the first fort at Plymouth. One of the organizations receiving such assistance was the Royal Arms and Armor Society of Great Britain.

HISTORIC AMERICAN BUILDINGS SURVEY

New impetus was given to the Historic American Buildings Survey through the Committee on Preservation of Historic Buildings of the American Institute of Architects. Each chapter of the institute will appoint a preservation officer who will list all historic buildings in the area in which the chapter is located. Forms and instructions for listing such buildings with pertinent information concerning their history and former occupants have been prepared by the Service in collaboration with the National Trust and the AIA. The preserva-

on officers also will advise individuals and organizations on restoration of historic buildings and will assist in their preservation. Active recording of historic buildings through measured drawings and photographs was suspended at the beginning of World War II.

MUSEUM ACTIVITIES

The Service, through its Museum Laboratory, carries on a dual program of preservation and rehabilitation of scientific and historical collections and of museum exhibit construction. The list of items given preservative treatments in 1953 is much too long for a report of this nature. Important preservation work was accomplished on valuable paintings at Independence National Historical Park project, Hampton National Historic Site, and Castillo de San Marcos National Monument; also on numerous metal, leather, wood, paper, and cloth objects at 16 other museums or houses.

The outstanding exhibit construction was the preparation of the 5 exhibits installed in the Zenger Memorial Room at Federal Hall Memorial National Historic Site, mentioned elsewhere. Exhibit construction was performed for 14 other areas and, at the close of the year, was in progress for the United States Marine Corps and for the State of Louisiana. Advice on museum planning was furnished to the States of Florida, Kentucky, and West Virginia.

DEDICATIONS, CELEBRATIONS, AND PAGEANTS

The Peter Zenger Memorial dedicatory ceremonies were held April 23 in the rotunda of Federal Hall in the presence of leaders of the Zenger Memorial Fund, Inc., the Federal Hall Memorial Associates, Members of Congress, and interested citizens. Arthur Hayes Sulzberger, who had taken an active part in the movement to establish the memorial, made the dedicatory address on behalf of the Zenger Fund and presented the memorial room to Hon. Orme Lewis, Assistant Secretary of the Department of the Interior, who accepted it on behalf of the Federal Government.

A joint international peace memorial service was held at Perry's Victory and International Peace Memorial on June 21 by the Ontario Provincial Command of the Canadian Legion, BESL, and the Ohio Command of the American Legion in honor of the 3 British and 3 American officers killed in the Battle of Lake Erie and buried in a common vault in the floor of the rotunda of the memorial shaft. Secretary of the Interior Douglas McKay, Maj. Gen. E. L. M. Burns, Deputy Minister of Veterans' Affairs of Canada, and Hon. John Brown, Lieutenant Governor of Ohio, were the principal speakers.

Another colorful celebration was held on November 19, 1952, when the Western Maryland Railroad, in observance of its centennial year, presented a historical pageant depicting Lincoln's visit to Gettysburg on November 19, 1863, when he presented his famed address. Part of the pageant was held in Gettysburg National Cemetery.

Pageants presented with success in historical areas included The Lost Colony, at Fort Raleigh National Historic Site; the Sword of Gideon, a revolutionary drama, at Kings Mountain National Military Park; and the Hiawatha Pageant at Pipestone National Monument.

CONSTRUCTION AND IMPROVEMENT

As explained to the Appropriations Committee of the House of Representatives, on June 30, 1953, the Service had an overall backlog of needed new construction projects and of urgent rehabilitation and maintenance of existing facilities equivalent to many times its annual appropriation. With continually increasing visitor use, the sum needed for construction and maintenance will mount.

Meanwhile every effort has been made to improve operating, construction, and maintenance methods to achieve maximum efficiency at the least cost. To this end, road and trail maintenance was contracted where possible and economically desirable; experiments were continued toward disposal of waste and refuse through mechanical means to provide more efficient disposal at reduced cost; and negotiations were undertaken with commercial firms for the provision, on a contract basis, of power and communications facilities.

FM radio field surveys were conducted at Great Smoky Mountains, Yellowstone, and Yosemite National Parks. Further work is being held in abeyance pending the outcome of negotiations with potential contractors. The radio systems under construction at Dinosaur National Monument and Sequoia and Kings Canyon National Parks are available for partial use. During the year, negotiations were under way for the furnishing, by subsidiaries of the American Telephone & Telegraph Co., of radio and telephone services in Shenandoah, Great Smoky Mountains, Big Bend, Sequoia, Kings Canyon, Yosemite, Mesa Verde, Yellowstone, Grand Teton, Carlsbad Caverns, and Glacier National Parks.

Good progress was made in negotiating contracts for supplying electric power to Everglades, Sequoia, Kings Canyon, Yellowstone, and Glacier National Parks. Contracts have been executed to supply Big Bend and Grand Teton National Parks with electric power.

Parkway development.—Parkway funds again were concentrated on the Baltimore-Washington Parkway, this high-priority defense project receiving \$8,250,000 of the \$9,605,000 available for the parkway.

rogram. Of this amount, \$1,500,000 represented contract authorization provided by the Federal Aid Highway Act of 1952. This emphasis on the Baltimore-Washington Parkway caused curtailment of much-needed construction on the seven other authorized national parkways.

The Federal portion of the Baltimore-Washington Parkway probably will be completed by the late fall of 1954. Units of the parkway will be opened to traffic as soon as they are completed, with some sections possibly ready for use late in 1953. During the 1953 fiscal year, contracts totaling \$6,307,054 were awarded or were in process for projects that include 7.7 miles of grading and draining, 4 grade-preparation structures, 1 bridge over the Anacostia River, and 10 miles of concrete paving.

A contract was awarded for the grading of the 4-mile gap in the Blue Ridge Parkway on section 2U in North Carolina which, when completed, will make an 11-mile section of the parkway available for public use in the vicinity of Asheville. Work was started on the development of the Linville Falls Recreational Area on the parkway. The Maryland Legislature approved the acquisition of the necessary right-of-way by the State for the construction of that portion of the Chesapeake & Ohio Canal Parkway between Cumberland and Hancock.

Paving of the Colonial Parkway through the Williamsburg Tunnel and the connection of the parkway with Tazewell Hall Avenue in Williamsburg was completed. Every effort is to be made to complete the Williamsburg-Jamestown portion of the parkway in time for the celebration in 1957 of the 350th anniversary of the founding of Jamestown.

Three bridges were completed and grading and draining is well under way on the southbound lane of the 1.6-mile Gatlinburg-Banner Ridge portion of the spur road between Gatlinburg and the main line of the Foothills Parkway at Caney Creek.

The road base of the Mount Vernon Memorial Parkway is deteriorating badly under the heavy use of almost 30,000 cars and buses a day. A large-scale reconstruction project appears to be the only solution. It is estimated that the first unit of this proposed construction work between the south end of the National Airport and the city of Alexandria will cost \$750,000. Right-of-way either has been acquired or is in process of being acquired through condemnation for the extension of the parkway from its present ending at Spouts Run to Chain Ridge. The construction of this section is in top priority on the Virginia side of the Potomac River. On the Maryland side, the construction of the portion of the parkway between the District of Columbia line and Carderock, Md., is of the highest priority. This

would extend the parkway from the District line to beyond the Navy David Taylor Model Basin.

On the Natchez Trace Parkway, work was under way on the grade separation structure at Mississippi Highway No. 35, which is the only gap in the 64-mile paved portion of the highway. Thirty-four miles of the parkway in Tennessee and Alabama now are ready for paving and will be the first paved units in these States. Funds are included in the 1954 budget for this paving. The Ridgeland Information Station, the first on the parkway, was opened to public use in March 1953 with appropriate ceremonies. Twenty-two miles of additional right-of-way for the Mississippi portion of the parkway were deeded by the State to the Federal Government.

Two additional lanes on the Suitland Parkway, between the District's South Capitol Street Bridge and Silver Hill Road in Maryland have been paved.

Bureau of Public Roads construction.—More progress was made in providing needed road construction in 1953 than in any other year since World War II. Major road improvements completed totaled 101.3 miles, at a construction cost of nearly \$4,300,000. The road construction under way on June 30, covering 24.2 miles of road, parking areas, and bridge structures, represents an expenditure of \$2,190,156. The most outstanding road-replacement project was the Moran-Yellowstone Approach Road in Grand Teton National Park, initiated in 1950 to replace a narrow, winding road north of Moran Junction. Completion of this scenic drive along Jackson Lake will facilitate traffic movement between the two parks. Other completed reconstruction jobs were the Cades Cove Road in Great Smoky Mountains National Park, a 10-mile section of the mile-high Trail Ridge Road in Rocky Mountain National Park, the Going-to-the-Sun Highway section between Logan Pass and Mount Cannon in Glacier National Park, and the Lassen Peak Highway in Lassen Volcanic National Park. Completion of grade-separation structures made available an entrance road from the northeast boundary of Acadia National Park to the main east-side loop road.

Buildings and utilities.—Construction was completed on many needed utility buildings, comfort stations, and ranger stations in Great Smoky Mountains, Big Bend, and Glacier National Parks; on an administration building in Boulder City for Lake Mead National Recreation Area; and on numerous employees' residences and other buildings in Big Bend, Glacier, and Yellowstone National Parks; Lake Mead National Recreation Area; Saguaro, Statue of Liberty, Chaco Canyon, and Badlands National Monuments; and Chickamauga and Chattanooga National Military Park.

A steam distribution line constructed at Independence National Historical Park project will furnish a central steam supply to buildings in the area, including Independence Hall and Carpenters' Hall. Through discontinuing individual heating plants, a serious fire hazard is removed.

When work under the present contract is finished, restoration of the exterior of the fort at Castle Clinton on the Battery in New York will be completed. Interior work also is necessary as funds become available.

At Perry's Victory and International Peace Memorial National Monument the 350-foot memorial shaft, which had had virtually no maintenance since its erection in 1912, was completely rehabilitated. Exterior masonry joints were repointed, masonry and tile cleaned, the interior lining repaired, the rotunda dome cleaned, and the bronze door to the observatory gallery replaced. Conditions discovered in the rehabilitation of this shaft indicate forcibly the need for periodic repointing about every 20 years; otherwise there is danger of irreparable damage to the basic structure.

Road and trail maintenance by contract.—To keep to a minimum the size of permanent crews engaged in road and trail maintenance in areas administered by the National Park Service, to obviate the necessity of recruiting temporary employees therefor, and to provide adequate road and trail maintenance, this work was contracted for in selected areas on an experimental basis. Removal of down trees in Olympic National Park and initial opening of several hundred miles of trails was accomplished under 26 contracts. As a result, trails in the area were open for public use much earlier than when the work performed by the park trail-maintenance crew, the logistics of supply was eliminated, and the work was performed at a lower unit cost. The success of this method of trail maintenance is dependent upon close proximity to commercial logging activities, but is being encouraged whenever practicable. Similarly, road maintenance on the Blue Ridge Parkway and center-line striping of roads in several parks have been accomplished under contract at considerable savings.

Portable rock crusher reduces trail-maintenance costs.—In the past, the production of suitable trail-tread material has been unduly expensive, since usually material is not available locally and has to be packed to the trail site, about 200 pounds per pack animal. This year, cooperation with commercial rock-crusher manufacturers, a small portable rock crusher was successfully developed and put into service to produce tread material for Grand Canyon National Park trails. This gasoline-engine-driven unit breaks down into components of less than 200 pounds that can be transported by pack train. It has resulted in appreciably reducing trail-tread material costs.

Sanitation studies.—The Service inaugurated a far-reaching survey of all features of sanitation, including cost and time studies of garbage and trash collection and methods of disposal. Comparison will be made of the cost of disposal by mechanical means, such as large stationary and portable grinders and household garbage grinders and incinerators, as against the sanitary land-fill methods. Laboratory tests will be made to determine the value of newsprint and paper trash for mulching, as this seems to be the predominant material used to charge the machines. Cost studies will be undertaken with mechanical equipment at a permanent location and as a portable vehicle where areas need mulch residue. Soil tests will be made at selected treated locations to determine the acid and other element values. The first field study will be initiated at Shenandoah National Park.

Trailer accommodation study.—A special study was undertaken to determine how best to meet the growing demand for modern trailer accommodations in national parks. After preliminary information was obtained from officials of the Trailer Coach Manufacturers Association, a Service staff member was assigned to make a trailer trip to study the layout and operating methods used by trailer court operators and to gage public reaction to the facilities and services offered. The final report will cover general problems such as trailer space requirements, adequate circulation and parking, individual utility connections, laundries, showers, comfort stations, and similar facilities. The tentative solutions to the general problems then must be adapted to special park conditions such as rough terrain, short tourist season, and the necessity of preserving the natural scene.

Student assistant training program.—A program for the systematic summer employment of promising students majoring in landscape architecture, engineering, and architecture following completion of their sophomore and junior years was undertaken during the 1951 summer season in the hope of providing a reservoir of technically trained personnel for future permanent employment by the Service. This program was so successful that it is planned to continue it. Of the 35 students employed the first season, several have accepted permanent employment in the lower professional grades.

THE PARK FORESTS

Forest-fire control is the concern of all large forest-land managing agencies, regardless of location or purpose. The problems of control of forest fires within these wild lands have a marked similarity. Frequently numerous or large fires not only involve the territory of more than one agency but also demand the maximum effort of sev-

at the same time. Recognizing these essential facts, the Service worked toward a broader knowledge of our neighbor's problems and the men who carry on this work. Joint agency meetings in the East and West, geared to this purpose, have increased the efficiency of mutual aid and further improved the fine relationships at all levels of operation.

The Service's fire record for the year is of interest. Although the total number of 465 fires was exceeded only twice during the preceding years, the total acreage burned (6,133) within areas administered by the Service was well below the average. The total number of lightning fires (197) was the greatest ever recorded.

The Service's good fire record was attained during a year when conditions were serious over the country as a whole. The eastern States suffered severe losses by fire during the long dry period of late summer and entire fall.

Tree disease control.—White pine blister rust continues to be the disease of major concern. The initial phase of the control program is nearing completion, with 73 percent of the control area now requiring only infrequent reexamination. Of unusual interest this year was the successful establishment of the Mount Whitney blister-rust-control camp at an elevation of 10,500 feet in Sequoia National Park. As a result of this project, initial control work was successfully completed on one major unit of unusual sub-Alpine white pines. All equipment and supplies needed to set up the camp were flown in and dropped by parachute. Movement of this material by pack animals would have seriously delayed the opening of the program since travel through the mountain passes of the Sierra Nevada is frequently impossible until snow melts in late summer.

With the successful completion of the first phase of the dwarf-pinyon control project in the ponderosa pine forests on the South Rim, at Grand Canyon National Park, a similar project was initiated at Bryce Canyon National Park.

Forest insects.—Forest insect conditions were of major concern at three western areas. The intensifying spruce budworm epidemic entering Yellowstone National Park along the Continental Divide required aerial spray control. Experimental treatment by aerial spray was recommended to reduce the extensive damage to lodgepole pine and needle miner in the high elevations at Yosemite National Park. A serious epidemic of spruce barkbeetle has developed on the Flathead National Forest and threatens adjacent Glacier National Park.

Elsewhere maintenance control has generally been effective in keeping barkbeetle and defoliator damage to a minimum. Barkbeetles at Lassen Volcanic National Park and defoliating insects in southwestern areas required aggressive control measures this year.

Wherever practical, insect-treated trees have been salvaged for usable wood products, resulting in decreased costs of control.

Grazing.—The number of livestock-grazing permits was decreased despite increasing pressures to open new areas for such use. Pasturing use in eastern historical areas showed a slight increase, as did pack and saddle stock grazing on western areas.

Tree maintenance.—Tree-maintenance work, similar to that now accomplished in the eastern areas, is urgently needed in the developing and public-use areas of the western national parks and monuments. The condition of the oak groves in Yosemite Valley became so serious that a special project was initiated to survey the situation, rehabilitate the most serious trees, and train a local crew in elementary arboricultural work.

NATIONAL CAPITAL PARKS

Deep concern is felt over the proposal to construct a bridge across Theodore Roosevelt Island in connection with the District's highway extension plans. This wilderness island was donated to the Federal Government as a memorial to President Theodore Roosevelt. The Congress in 1932 authorized acceptance of the island, to be maintained and administered as a natural park for the recreation and enjoyment of the public. The act contains the provision "that so long as the Roosevelt Memorial Association remains in existence, no development inconsistent with this plan be executed without the association's consent."

The Roosevelt Memorial Association, the National Capital Planning Commission, the Fine Arts Commission, the National Park Service, and other organizations have consistently opposed the construction of a bridge over the island, both because it would be in contravention of the purposes of the gift of the island to the Federal Government and its acceptance by the Congress for public use and because it would seriously affect the White House. The only direct approach to the proposed bridge would be E Street, which borders the White House Grounds on the south. This street is inadequate to carry an additional traffic load. Widening the street would necessitate encroachment on the White House Grounds. The bridge also would adversely affect the central design of the Nation's Capital and would, to a great extent, destroy the planning efforts of generations of the Nation's most capable men, beginning with President Washington.

Additions to the National Capital parks system.—The 25-acre Nevius tract adjacent to Arlington National Cemetery on the Capitol-Washington Monument-Lincoln Memorial axis was the most impor-

single addition to National Capital parks during the year; and the area is expected ultimately to become the site of a major memorial. Total expansion of the National Capital parks system amounted to 2,71 acres.

Carter Barron Amphitheater.—On January 29, 1953, the National Capital Sesquicentennial Commission officially transferred all rights, title, and interest in the Carter Barron Amphitheater and associated structures to the National Park Service. In April, a contract was entered into between the Department of the Interior and Washington Festival, Inc., for the use of the amphitheater during the summer of 1953.

FINANCIAL OPERATIONS

The work of streamlining and simplifying various accounting functions was continued, as was the decentralization of authority and responsibility for many fiscal matters. All allotment functions for activities except parkway, road, and trail construction have been decentralized to the Service's regional and field offices.

The increase in the Service's workload incident to the tremendous surge in visitor use of the areas was recognized by Congress by modest increases in the 1953 fiscal-year appropriations. Total appropriations amounted to \$33,162,330. Of this amount, \$18,131,920 was for operating expenses—management and protection, maintenance and rehabilitation of physical facilities, and general expenses. The remaining \$15,030,410 was for construction—\$8,104,700 for parkways, \$674,740 for roads and trails, \$1,911,510 for buildings, utilities, and similar construction, and \$339,460 for lands and water rights.

Fee revision to produce additional revenue.—In compliance with requests by the Bureau of the Budget and the House Appropriations Committee that more revenue be derived from visitor use of the national park areas, a new schedule of fees became effective June 8. Under this schedule a new 15-day automobile permit was established for each area which already had an automobile permit fee. The 15-day permit fee is the same as the previous annual fee; new annual fees are twice the amount of the 15-day permit fee. The revised fee schedule fixes an equitable differential between the onetime visitor and the frequent visitor and will help materially to eliminate public complaints. A further study of the fee system will be made during the 1954 fiscal year.

A detailed survey of entrance checking-station staffing needs made during the year indicated that approximately \$427,000 in additional revenue could be collected by the expenditure of \$200,000 more for

sufficient seasonal personnel to man the checking stations the first time it would be productive to do so.

Reappraisals of rents for Service-owned housing.—In accordance with mandatory requirements, a complete reappraisal was made of Service-owned quarters and utilities furnished in connection therewith. Every effort was made to insure uniform and equitable appraisals, and all proposed rates and determinations were reviewed by a committee of field personnel prior to final approval. The new rates are to become effective on a graduated basis at the beginning of the first pay period in the 1954 fiscal year, or July 5, 1953. Under the reappraisal the average overall increase in quarters rental was 54 percent, and the overall increase for utilities furnished by the Government at 91 percent. The Service owns 1,238 sets of housekeeping quarters and 600 nonhousekeeping units, which represent a capital investment of approximately \$20 million.

Equipment amortization program.—The program of equipment amortization was continued, and was extended during the 1953 fiscal year to cover passenger vehicles. In addition to providing flexibility in the management of equipment funds, which are no longer classified as nonrecurring items, the program also provides for greater utilization of available equipment by operating on a pool basis, with each activity or work program contributing to the amortization fund in direct proportion to its use of such equipment. Further extension of the program will be possible when the Service's basic authorities being now pending before the Congress, is enacted. It will also permit improved management practices and better equipment inventory control; and will simplify accounting for amortization credits.

Audits.—Instructions and procedures covering the internal audit program were revised to enable the Service to maintain more effective controls and to carry out its responsibilities as set forth in the Budget and Accounting Procedure Act of 1950.

TRUST FUND

The National Park Trust Fund, established under authority of the Congress in 1935, was increased by \$4,834.19. Of this amount, \$274.40 was interest on Government bonds with a face value of \$18,500, and \$4,559.70 was received from rentals on certain properties in Grand Teton National Park which Jackson Hole Preserve, Inc., had donated to the United States.

In 1952 the Trust Fund Board had authorized expenditures up to \$15,000 for the preparation of preliminary architectural plans for the development and construction of visitor accommodations in Grand

ton National Park. Under this authority, \$13,500 was expended the 1953 fiscal year.

It has long been felt that greater public attention should be drawn to the possibilities offered by the National Park Trust Fund for contributions from corporations and individuals as authorized by the Federal tax laws. An anonymous gift was received during the year sufficient to permit the publication of a handsome brochure which will indicate some of the needs of the Service, unlikely to be met by appropriations, and the opportunities these present for extraordinary and lasting public service. This brochure is expected to be off the press early this fall, and every effort will be made to place it in the hands of those believed likely to be interested.

PERSONNEL MANAGEMENT

The personnel workload was heavier than in 1952 because of several factors, a major one being a study of existing positions in accordance with the requirements of the Whitten amendment, and the resultant submission of 155 redescriptions. It is felt that, despite the unusual pressure of work, the benefits from the position studies fully justified the extra work involved.

Ranger examination.—A civil-service examination for the position of park ranger GS-5, the first since 1949 (and only the second since 1937), was held in April. More than 1,500 persons applied for the examination, but less than 1,000 actually took the test, and only 246 candidates passed.

An innovation in connection with this examination was the appointment by the Civil Service Commission of a Board of Civil Service Examiners with Service-wide examining responsibilities. This board not only handled most of the details in connection with the ranger examination but in the future will perform the same functions in connection with other examinations for positions peculiar to the National Park Service or for positions in which the Service has a greater interest than other Federal agencies. Included in such positions are park naturalist, park historian, and park landscape architect. The examining board, selected by the Director and approved by the Department and the Civil Service Commission, includes the Service's personnel officer as chairman, the placement officer as executive secretary, and several key members of the Director's staff who represent important occupational fields.

Superintendents' positions.—Completion of the study of the 125 park-superintendent positions throughout the National Park Service, begun last year, resulted in the upgrading of 41 of these important

positions. This in turn made possible the upgrading of subordinate positions, helping to insure the retention of the required high caliber of men and women in these important posts. Further reclassification of superintendencies are anticipated. Studies were also made of park ranger positions throughout Region One.

Training and employee development.—The Service participated in the fourth departmental management-training program, selecting one field employee from each region for training. The participants attended a 4-week departmental orientation program, then undertook individual training assignments in this Service, in other bureaus, and in departmental staff offices. It is believed that the training the employees received during their approximately 9-month assignments in Washington will prove invaluable, both to the trainees and to the Service.

The Service conducted its 11th general administrative training course in the Region Four office in San Francisco from March 16 to 20. The 28 employees participating in the course were drilled in the principles of National Park Service administration and in Department and Service policies, organization, legislation, and operating programs.

Numerous other training courses were held by technical units, regions, and parks, in aid of greater efficiency.

Groundwork was laid for developing a new training course for field supervisory interpretive and protection personnel in each regional office, for the purpose of acquainting them with the broad concept of Service interpretation and with new and improved interpretive techniques and procedures.

“A Guide to Supervisory Development” was prepared during the year. It will provide basic materials and a framework for a Service wide supervisory development program for both office and field employees.

Personnel changes.—Changes, especially in the field of supervision, were too numerous to list. In-service transfers and promotions are therefore omitted. Other major changes follow:

Retirements.—Benjamin L. Hadley, superintendent, Acadia National Park; James W. Rader, superintendent, Fort McHenry National Monument, and Walter Finn, superintendent, Muir Woods National Monument.

Resignations.—Ross A. Maxwell, superintendent, Big Bend National Park, and V. Aubrey Neasham, regional historian, Region Four.

Furlough.—Carl P. Russell, superintendent, Yosemite National Park, to accept a Guggenheim Fellowship.

Awards.—Distinguished Service: Thomas C. Vint, chief of design and construction, and Jean C. Harrington, regional archeologist.

ion One. Conservation Service: Horace M. Albright, Mrs. Francis Crowninshield, Maj. Gen. U. S. Grant III, Harlean James, the George McAneny, John D. Rockefeller, Jr., and Tom Wallace.

LICATIONS

The task of handling the Service's publications program was heavier, in certain respects, more difficult than at any time since the close of World War II. This was largely because for the past 3 years the amount available for printing publications has remained fixed at \$1,500; and the problem will be greater in 1954, with the same amount of funds in prospect and heavier demands for publications. The informational publications next year may have to be spread out among at least 50 percent more visitors than was the case in 1951—the first year \$96,500 was available.

Near the end of the 1952 fiscal year, when it appeared inadvisable to submit for printing any items in the Service's two new series of sales publications, the available balances were used to requisition a number of publications which in the normal course of events would have been included in the 1953 program. This year no such funds have been available for advance printing; consequently, the 1954 program will have to bear an added load. So, the Service is faced with the problem of how to supply the field areas with necessary informational literature and at the same time include some sales items in the 1954 program.

Free informational publications.—Folders were printed for the first time for Castle Clinton and George Washington Carver National Monuments and for Federal Hall Memorial National Historic Site. Free informational publications ordered came to a total of 6,686,000 pieces. The total for the year might legitimately include those ordered near the close of the 1952 fiscal year to utilize balances—705,000 pieces—so that, in point of fact, what would normally have been included in the 1953 program totaled 7,391,000 pieces, costing \$89,979.77. Other miscellaneous items of informational printing amounted to \$1,987.85; the 1 year's requirements for nonsales informational printing came to a total of virtually \$92,000.

Sales publications.—A revised edition of "Plants of Rocky Mountain National Park" came off the press. The first of a series of nature-history handbooks, one on Olympic National Park, is being printed. Manuscripts for 2 others have been prepared and 6 more are in progress. Three new historical handbooks—Fort Raleigh, Manassas, and Yorktown—were added to the series; 2 others, Fort Pulaski and Independence, were sent to the printer, and another, Home of

Franklin D. Roosevelt, is being prepared and will be ready for printing early in the 1954 fiscal year. "Archeological Excavations in M. Verde National Park" was also added to the Archeological Research Series. The first item in the National Park Service Activities Series (an informal designation), entitled "Forests and Trees of the National Park System," is being produced. "Tree Preservation Bulletin No. 1, General Spraying Practices," was completely revised and is being printed.

History and natural history association publications.—The cooperating nonprofit distributing associations, set up in various areas under authority of Congress, issued a number of highly useful publications. Booklets on the scientific and historic features of various park areas were welcome additions to the field of park literature.

NOTES OF INTEREST

President Eisenhower visited Mount Rushmore National Memorial in June.

Southwestern Monument headquarters.—In November separate offices for the Southwestern National Monuments supervisory groups were reestablished and moved into quarters at Globe, Ariz., in what was formerly the Gila Pueblo archeological museum.

Volcanic activity.—Mount Trident, in Katmai National Monument, Alaska, erupted in February, sending smoke an estimated 30,000 feet high. There was also a lava, or mud, flow half a mile in length. Earlier there had been minor activity on Mageik, Martin, Novarupta, and Baked Mountains. No damage was reported from the Trident eruption, the most violent since the Mount Katmai eruption of 1912.

The eruption of Kilauea Volcano in Hawaii National Park, which began late in June 1952, lasted 136 days, the third longest in its recorded history. It drew more than 500,000 visitors from all parts of the world.

Records inventory.—Progress was made toward completion of an inventory of the records of the Service, as required by the Records Management Act of 1950. The inventory was conducted with the assistance of the Records Management Division of National Archives and the Record Service of General Services Administration.

NNUAL REPORT

the DIRECTOR

ATIONAL PARK SERVICE

the

ECRETARY OF THE INTERIOR

print from the

NNUAL REPORT OF THE SECRETARY
F THE INTERIOR

the Fiscal Year Ended June 30, 1954

sical Year Ended June 30

1954

GENERAL LIBRARY
JUL 22 1955
UNIVERSITY OF GEORGIA



•GENERAL INDEX

55 85

GENERAL INDEX

National Park Service

Conrad L. Wirth, *Director*



THE National Park Service is responsible for the conservation and regulated use of the Nation's outstanding scenic, scientific and historic areas. For the past 38 years, the Service has guarded these precious resources by careful management, progressively improved operation, well-trained personnel, and by fostering public understanding and appreciation of the areas.

In the past year, as in each succeeding year since World War II, the value and usefulness of the national parks to the American people became increasingly evident. The people are the owners of these replaceable resources, and their growing realization of the richness of their heritage is ever more apparent as the visitor count spirals to the tens of millions. In 1953 visitors exceeded 46,000,000—an increase of 112 percent in 7 years.

Whole families go to the parks together, to camp, to play, to find them refreshment, enjoyment and spiritual sustenance. It is a wholesome and encouraging trend. To the National Park Service it presents a challenge of great magnitude. The safeguarding of America's primeval wildernesses and significant historic sites while making them available to great numbers of people is of paramount importance.

For some years, emergency demands for funds and personnel have taken precedence and appropriations have been far short of the amounts needed for upkeep of the parks and to properly care for this heavy visitor load.

Early in the fiscal year, while organizational changes were being introduced, Secretary McKay alluded to the problem in a public speech:

We have been compelled to admit that, since the war, appropriations have not been sufficient to enable the National Park Service to provide development in proportion to the vastly increased volume of public use. We want to provide the kind of service which enables the visitor to get the maximum enjoyment from his park experience.

I believe that the reorganization of the Service now being put into effect * * is going to help it perform its varied tasks more effectively. However, I do not delude myself into thinking that the reorganization of an agency which was already functioning with a high degree of efficiency, and whose employees are widely hailed for their dedication to their work, is the whole answer.

I can only say * * * that I am hopeful that the time may not be far distant when other demands on the Treasury, which have had to be given high priority, will lighten enough so that more liberal and more nearly adequate provision may be made for the needs of the National Park System.

The Congress has been sympathetic, too, and was able to brighten the picture somewhat at the beginning of the new fiscal year by a special fund allotment for additional seasonal personnel for the summer of 1954. Some alleviation of the critical road-deterioration problem was also in view as the year ended, with provision in the 1954 Federal Aid Highway Act for additional construction funds.

However, in the nearly 9 years since the end of World War II there has been almost no provision of additional facilities to meet the vast increase in number of visitors. The tremendous backlog of roads and trails, and buildings and utilities projects, remains little changed; it has, in fact, grown rather than decreased. Facilities as a whole are so inadequate, and largely obsolescent, as to have caused a large volume of comment from magazines and newspapers during the year.

In many of its activities, the Service achieved substantial progress during the 1954 fiscal year. The land acquisition program moved forward with the help of State and private sources, some 93,000 acres of nationally significant lands were added to round out authorized park boundaries. A new area, historic Fort Vancouver, became a full fledged national monument; another, George Washington Carver National Monument, was dedicated in honor of a great American.

Through the beneficence of public-spirited citizens and organizations, the Service was enriched by some \$454,000 for specific park purposes and a great amount in lands, properties, and historic artifacts. A donation in excess of \$209,000 from the General Federation of Women's Clubs for furnishings at Independence Hall; of \$82,000 from the Old Dominion Foundation for land acquisition at Wright Brothers National Memorial and \$25,000 from the same source for a Cape Hatteras research study; \$10,000 from Moses H. Cone Memorial Hospital for the Moses H. Cone Memorial Park—these examples could be multiplied. The famous Fuller arms collection, appraised at \$250,000, was donated and installed at Chickamauga. John D. Rockefeller, Jr., was about to add \$500,000 for land acquisitions to previous contributions.

Excellent progress was made in utilizing commercial facilities as substitutes for park-operated utilities with improved service and substantial savings achieved. Park visitor-fees were adjusted in line with higher costs to bring additional revenue. And a major highlight

as the progress in encouraging private capital investment in improving and increasing public accommodations for park visitors; millions of dollars in private capital was thus being invested by the end of the year, adding appreciably to the facilities needed so acutely both for today and tomorrow.

REORGANIZATION

One of the major results of a study, during 1953, of the organization and functioning of the National Park Service, by a Management Study Committee appointed by the Secretary, was a reorganization of both the Washington office and regional offices, establishment of two branch offices for design and construction, and the delegation of much greater degree of administrative responsibility to those in charge of field areas. One recommendation, growing out of the findings of the committee, which would have increased the number of regional offices to 6 from the present 4 has had to be deferred because of a mandate of the two appropriations committees of Congress that limited the use of general administrative funds to the Washington office and the existing regional offices. The committees also asked that the Department study the possible desirability of abolishing the Region 1 office and transferring its functions to Washington.

In the Washington office, the changes resulted in a reorganization providing for 2, rather than 3, assistant directors. The assistant director in charge of administration supervises the branches of finance, office services, personnel and safety. The assistant director in charge of operations supervises the branches of concessions management, lands, forestry, a new branch of programs and plans control and a new maintenance section. The chief of the Audit Branch is made directly answerable to the director, and the staff of the chief counsel has been transferred to the Officer of the Solicitor.

In addition to the previously existing Division of Design and Construction, two new divisions have been established. Interpretation includes the branches of history, information, natural history, and museums. A new Division of Cooperative Activities includes the branches of area investigations, river-basin studies, and State cooperation. Also directly under the director is a new assistant concerned principally with management improvement.

All the detailed functions of design and construction are now centered in two branch offices of design and construction, in Philadelphia and San Francisco, which began functioning on June 1. The four regional offices, with their reduced staffs, have been delegated much of the authority formerly exercised by the director, and most of this has, in turn, been redelegated to those in charge of field areas, in varying degrees, depending largely on the adequacy of area staffs. A

number of technicians, formerly on regional office staffs, have been transferred to field areas where, as a rule, they serve two or more areas.

TRAVEL IN PARK AREAS

The dynamic growth of our population is reflected in the heavy travel in park areas. The upward trend that has marked the past years continued, with 46,224,794 visitors recorded in the 1953 calendar year as against 42,299,836 in 1952—an increase of nearly 4,000,000. Natchez Trace Parkway, included for the first time in the report, accounted for about one-third of the overall increase. Eleven areas attracted more than 1,000,000 visitors each. Of these, Blue Ridge Parkway recorded 4,266,975 visitors; 2 other areas had more than 2,000,000 each.

In addition to the visitors reported above, the National Capital Parks, exclusive of national memorials, had a total of 6,043,386 visitors in 1953.

Public interest in reports.—The statistical records on park visitors collected, compiled, and maintained by the Service are being used by private enterprise at an increasing rate as sources of information. During the year, the monthly reports were distributed regularly on requests to business and trade organizations, advertising agencies, public libraries, universities, newspapers, magazines and individual

Travel surveys.—Progress continued on the travel surveys of national parks started some years ago to obtain much needed information on travel habits and expenditures of park visitors. The findings provide data that are of assistance to the Service in managing and developing the parks and in evaluating economic benefits derived therefrom. The Bureau of Public Roads and State highway departments cooperate with the Service by conducting the surveys, with the assistance of park personnel. Such surveys have been completed for 4 national parks and 3 more are in various stages of completion. The Virginia Highway Department prepared a report, now being published, on findings in the Shenandoah National Park survey, field work for which was completed in fiscal 1953. Field work on the Yosemite National Park survey, in which the California Division of Highways participated, was finished in October 1953. The data obtained were being analyzed, to be followed by preparation of the report. The newest survey, of Grand Canyon National Park, was initiated last February, and field work was scheduled for completion in October 1954. The Arizona Highway Department is participating in this survey. An interim report on the sampling of winter use was released, and will be followed by those on other seasons as work progresses.

Distinguished park visitors.—President Eisenhower visited Abraham Lincoln National Historical Park on April 23, toured the park

and gave a brief speech. King Paul and Queen Fredrika of Greece visited Muir Woods National Monument, Calif., Grand Canyon National Park, Ariz., and the Home of Franklin D. Roosevelt in November 1953. The latter was also visited by President José Antonio Pérez of Panamá, Emperor Haile Selassie of Ethiopia, and Crown Prince Akihito of Japan. President Celal Bayar of the Republic of Turkey was a visitor at Lake Mead National Recreation Area.

Safeguarding the visitor.—Efforts were increased during the year to insure greater visitor safety in the park areas through careful planning, training of personnel and cooperation from the Red Cross, Public Health Service, and other agencies. Also, efforts to increase visitor safety-consciousness were continued by rangers, naturalists, and other field personnel through both printed and spoken warnings against possible hazards. There was a slight increase in visitor fatalities, from a rate of 1.04 per million visitors in the 1952 calendar year to 1.08 in 1953. Of the 50 visitor fatalities reported, 22 were from motor vehicles, 19 from drownings, 6 from falls, and 3 from other causes.

IMPROVEMENTS IN PUBLIC ACCOMMODATIONS

A major achievement of the year was the progress made in encouraging private capital investment in public accommodations to serve the millions of park visitors. The accomplished concessioner contracts and permits represent careful and detailed study as to how the needs and demands of the visiting public can be met with encouragement and protection to the investment involved. Improvements of concessioner-operated facilities underway or planned will be of immeasurable help in providing for greater public enjoyment of national park areas.

Contracts.—The Service entered into 16 new concession contracts and 8 extensions of existing contracts. Of the new contracts, 3 were fully executed; 2 were under review by the Congress in accordance with requirements of the act of Congress of July 31, 1953, and 11 were being processed for transmittal to the Congress. Six of the 8 extensions were fully executed, one was before the Congress and one was being readied for transmittal. Forty-five concession permits were handled of which 34 were completed, one was under review by the Congress, and 10 were in process for review. Ten subconcession agreements covering a wide variety of incidental services were approved.

Construction and improvement of facilities.—At Grand Teton National Park, where travel had increased 509 percent over 1946, the Grand Teton Lodge & Transportation Co. launched a program for development of public facilities which is expected to involve an investment in excess of \$5,000,000. Here construction of a three-story

main lodge and 256 cabins at Jackson Lake had progressed to the point where 150 cabins were opened to the public on June 13, 1954, months ahead of schedule. The lodge, remaining cabins, stores, cafeteria, service stations and other facilities are expected to be completed for use in time for the 1955 travel season. In the Colter Bay area, the company will place some 200 log cabins, a 112-site trailer area, commercial-service buildings and employee residences. The Service will be developing the 229-site campground, providing roads and parking areas, and installing a utility system for the park areas.

In another concessioner development, at Yosemite National Park, the Yosemite Park & Curry Co., built a new store and grill and reconstructed Big Trees Lodge at Wawona and was anticipating construction of new accommodations in the Yosemite Village area. Hamilton Stores, Inc., has agreed to spend some \$600,000 in improving its public facilities in Yellowstone National Park; the Mesa Verde Co. agreed to provide additional housing for visitors at Mesa Verde National Park; and Almours Securities, Inc., will improve facilities on the George Washington Memorial Parkway at Mount Vernon.

At Lake Mead National Recreation Area, concessioner improvements made during the year include the Anderson Brothers' 150-unit trailer court at Boulder Beach; 6 new cabins, a shop and other facilities at Temple Bar; a 60-unit trailer court and 8-room motel by Mohave Resorts Co. at Katherine; and an 8-room employees' dormitory at Lake Mead Lodge. The long-standing boat transportation problem of the Statue of Liberty National Monument has been resolved with the awarding of a concessioner contract to the Circle Line-Statue Ferry, Inc., which has placed two new boats in operation. In Hawaii National Park, the concessioner completed an addition to Volcano House; an inn and cabins were completed on Ocean Strip, Olympic National Park; and bungalow units and service station at Lassen Volcanic National Park.

While these improvements are welcome, it must be pointed out that they meet only a small fraction of the need for improvements and additions to care for the great increase in number of visitors.

USE OF COMMERCIAL UTILITY SERVICES

Substantial progress was made in the program of utilizing commercial facilities in park areas as substitutes for locally-operated utilities. Improved service and reduced costs have resulted, particularly in the electric power and communications fields.

At Grand Canyon National Park, where the Arizona Public Service Co. contracted to supply electricity, service will be improved and annual savings of \$20,000 have been estimated. Western Engineering Co. has contracted to take over maintenance of all radio communica-

ns in Glacier National Park at an estimated saving of \$8,000 a year. There also, contracts have been negotiated with the Flathead Electric Corp. and the Glacier County Electric Cooperatives to furnish electric service to various areas. At Big Bend National Park, the Rio Grande Electric Cooperative, Inc., with an allotment of REA funds, brought electric power to the principal developed areas, resulting in elimination of 10 power-generating units in the park.

Electrical service by the Salt River water users power district at onto National Monument, introduced during the year, has eliminated e of small electric powerplants, reduced expense and improved serv-
e. Arches National Monument has contracted with the Utah Power Light Co., for electric power and the use of propane gas will be iminated. Use of Arizona Public Service gas at Southwestern Na-
-onal Monuments headquarters eliminated propane gas and reduced its one-third in the first 7 months.

In Grand Teton National Park, a contract for construction of a powerline from the south boundary of the park to Jackson Lake dge and Colter Bay, together with spur lines serving other de-
-veloped park areas, was awarded by the REA to Alpha Construction o. on May 28. The project was expected to be completed well in lvance of the 1955 travel season.

The Mountain States Telephone & Telegraph Co. has taken over aintenance of the Mesa Verde National Park telephone system under contract. Negotiations were under way with the Pacific Telephone and Telegraph Co. to operate the telephone system in Sequoia and Kings Canyon National Parks and in Mount Rainier National Park. other national parks including Zion, Bryce Canyon, Shenandoah, Mammoth Cave, and Great Smoky Mountains were in the negotiating age for commercial telephone services. At Shiloh National Military Park, arrangements had been completed for installation of dial telephone service by the Adamsville Telephone Co.

CONSTRUCTION PROGRESS

The outstanding development of the year pertinent to vitally needed construction projects was the contract authorization provision in the 1954 Federal Aid Highway Act signed by the President on May 6. Under this provision whereby funds authorized for park roads and trails and for parkways in the next 3 years are immediately available for contract, a total of \$35,000,000 is authorized for park road and trail construction and \$32,000,000 for parkways.

The average annual appropriation for roads and trails in the 8 post-
-war years has been only about \$4,000,000 in each of the 2 categories. Through the new provision, work will be almost tripled. Also it will be possible to speed up progress on the huge backlog of work, com-

pletion of which is of vital importance for the preservation of park areas and the safety of the millions of park users.

To enable the Service to implement an accelerated program in the 1955 fiscal year under the contract authorization provision, Secretary McKay requested congressional approval on June 11 of a \$5,275,000 supplemental appropriation. Of this amount, \$4,075,000 would be added to the 1955 budget estimate of \$425,000 for parkways; and \$1,200,000 to the \$3,800,000 estimate for roads and trails. A major portion of these funds will be required to meet payments for contracts awarded to private contracting firms under competitive bidding.

In the 1954 fiscal year, the \$10,376,300 in new construction funds appropriated included \$4,050,000 for buildings and utilities; \$4,010,000 for roads and trails; and \$2,316,000 for parkways. In addition, \$1,500,000 was appropriated to finance a 1952 Federal Highway Aid Act contract authorization for the Baltimore-Washington Parkway.

With the new funds and other obligated moneys from previous appropriations, the Service directed construction primarily toward provision of the most urgent public use facilities. Such work, including roads, trails, parking centers, campgrounds, buildings, passenger elevators, utility systems and related facilities necessary for administration, protection and interpretation, was accomplished to an appreciable extent. Parkway construction progressed on a limited scale on 6 of the 8 authorized parkways.

Buildings, utilities, and grounds.—An expansion of facilities at Grand Teton National Park was undertaken and contracts awarded for: a water supply system to the Jackson Lake Lodge and Colter Bay areas, \$331,021.10; and an electric distribution system for the Jackson Lake area, \$37,500. In Everglades National Park, work was begun on the first major public use development at Flamingo, on Florida Bay. Dredging was started there on a boat basin and other developments will include camping and picnic facilities, dock and shelter building, roads, and water and sewer systems.

At Carlsbad Caverns National Park, a \$208,619 contract has been awarded for two 25-passenger elevators and construction of the elevator house. Excavation of the elevator shaft and construction of a pit and lobby in the cavern were completed by the contractor at a cost of \$231,718.50. A project to improve electricity in the caverns is in progress. At three different locations in the cave a total of 2,500 seats have been installed to provide visitor comfort during interpretive talks.

Of special note was the construction of an addition to the Chickamauga museum to house the Fuller collection of small arms, administration and public-use buildings at Joshua Tree and Saguaro

tional Monuments, and utility buildings in Potomac Park, Washington, D. C., and at Death Valley National Monument. New compounds were developed in several areas including the first 2 at Mount McKinley National Park, Alaska, and the first 1 at Organ Pipe Cactus National Monument. At Coulee Dam National Recreation Area, 16 small campgrounds and picnic areas were developed by the volunteers in their spare time with the help of donated labor from adjoining towns.

During the year, the Atchison, Topeka, and Santa Fe Railway Company sold to the Federal Government the utility facilities it owned in Grand Canyon National Park, appraised at \$1,100,000. On March 11, 1954, the director accepted title to these facilities for the Government.

Parkway development.—With 1954 appropriations and carryover funds from previous years, parkway construction contracts and force account projects totaling \$9,534,834.90 were completed. These included 29.7 miles of grading, 10 bridges and grade separation structures, and 16.4 miles of paving. All major construction contracts under the \$14,500,000 authorized for the Baltimore-Washington Parkway, the high-priority defense project, were either completed or nearing completion by the end of the fiscal year. The parkway portion between Jessup Road, which joins the State of Maryland section, and the Laurel-Bowie Road, a distance of 7 miles, was opened to traffic in November 1953. Balance of the project was expected to be completed and open to traffic in October 1954.

Work continued on grading of the 4-mile gap in the Blue Ridge Parkway on sections 2U and 2V west of Asheville, N. C., to connect previously graded units, and on the Tuggles Gap separation structure in Virginia. Bids were opened on June 29 for the contract to grade section 2G1, 3 miles, in the vicinity of Blowing Rock, N. C. When completed this section will provide direct access to the Moses Cone Memorial Park on the parkway and will enable motorists to bypass the congested resort town of Blowing Rock.

An aerial mapping survey of the Cumberland-to-Hancock section of the Chesapeake and Ohio Canal Parkway was started and, when completed, will provide topographic maps of the first unit of approximately 15 miles from Cumberland, Md., to Oldtown. Completion of the grading, stone base, and paving of 1.6 miles of the Foothills Parkway between Gatlinburg, Tenn., and Banner Bridge, has eliminated the need to use the dangerous one-way Banner Bridge across the west fork of the Little Pigeon River.

Plans were completed for the hydraulic fills on the section of the Colonial Parkway between Williamsburg and Jamestown Island, Va., and this work was expected to start early in fiscal 1955. Concentrated efforts continued toward completion of the Jamestown-Wil-

liamsburg-Yorktown portion of the highway in time for the 1954 celebration of the 350th anniversary of the founding of Jamestown.

On the Natchez Trace Parkway, 2.4 miles of grading and one overpass structure in the vicinity of Tupelo, Miss., were completed. Approximately one-third of the grading on an adjoining section was completed by day labor before closing down the project due to lack of funds. The grade separation underpassing Mississippi State Highway No. 35 near Kosciusko, Miss., was also completed and opened to traffic. Grading of a 34-mile unit between Alabama Highway No. 31 and U. S. Highway No. 64 in Tennessee was completed and paving was started under contract. When finished, this will be the first major unit of the parkway to be completed in those States. The 64-mile completed section in Mississippi had close to 1.5 million visitors recorded in 1953.

Bureau of Public Roads construction.—Though the park roads program undertaken by the Bureau had fewer completions than previous years, the scope of the program was significant. Several outstanding road replacements and improvement projects that had accumulated over a period of years due to limited funds were started. The work of this nature under contract as of June 30, 1954, represents \$2,327,000 and applies to 44 miles of road. The total road program under contract amounted to \$4,552,224 affecting 100 miles of road.

The newly initiated projects included work on the Many Glacier and Approach Road to Glacier National Park, and resurfacing of the Going-to-the-Sun Highway; reconstruction of 3.5 miles of the Norris Canyon Cutoff Road, Yellowstone National Park; replacement of a portion of the Cedar Pass-Pinnacles Highway, Badlands National Monument; replacement of a 6.5-mile portion of the Bear Lake Road, Rocky Mountain National Park; reconstruction of the last section of the South Entrance Road, Grand Canyon National Park, supplementing work started in 1953; and a 9-mile portion of the South Approach Road to Grand Canyon National Park.

Projects completed totaled 10 miles at a cost of \$520,000 including the Katherine Spur Road, Lake Mead National Recreation Area; a 1.5 mile section of the Heart of the Hills Road, Olympic National Park; 2 surfacing projects on the Cades Cove Road, Great Smoky Mountains National Park, and 1.8 miles at the eastern terminus of the Zion-Bryce Canyon Approach Road.

Park Service roads and trails program.—Outstanding roads and trails projects completed under direct Service supervision include the new campground at the Old Faithful area in Yellowstone National Park; slope stabilization on roads in Shenandoah National Park, and along the Rim Road in Crater Lake National Park; the concrete sidewalks and utility yard at the Statue of Liberty National Monument.

the utilities road at Badlands National Monument; the road system for the Colter Bay development at Grand Teton National Park; the bypass road at Appomattox Court House National Historical Park; and the West Entrance Road at Big Bend National Park.

SPECIAL STUDIES

Sanitation studies.—To develop economic and efficient refuse and trash disposal methods, to meet the load imposed by vastly increased sanitation, negotiations have been completed with the United States Public Health Service to conduct a series of trash and refuse disposal studies during fiscal 1955 in Glacier, Yellowstone, Grand Teton, Yosemite, Shenandoah, and Great Smoky Mountains National Parks.

Trailer accommodation study.—The special study, initiated last year, to determine how best to meet the growing demand for modern trailer accommodations in national parks, has been completed. A handbook containing results of the study is being prepared for distribution to administrative and professional personnel.

NATURAL HISTORY

Interpretive activities.—The need for more personnel in the parks, not only the protective forces but those in the naturalist field to interpret the scenic-scientific areas to the people becomes increasingly acute. As visitors continue to increase, supplementary devices—visual and self-guidance aids—are being employed effectively. Interpretive facilities and services in the 58 scenic-scientific areas served 19,901,244 people in 1953, compared with 17,143,947 for 53 areas in 1952, an increase of 10.2 percent. Emphasis on self-guidance was reflected in an increase from 9,424,984 persons served in 1952 to 11,207,70 in 1953.

Pilot studies of visitor needs and interpretive methods have been undertaken jointly by naturalist and historian staffs. Visitor interviews and a field study were conducted in May 1954 at Fort McHenry and a similar study was scheduled for early August at Acadia National Park. Other studies included one on self-guiding trails and ours, another on performance-testing of audiovisual equipment together with experimental installations in selected areas. Interpretive signs and markers were under study and improvements were being introduced. A survey of campfire circles was completed and the resultant report will serve as a guide for a servicewide campfire rehabilitation program. Plans were under way for a study aimed at bettering opportunities for visitors to observe wildlife in the parks.

Progress in interpretive training.—Significant progress was made in training interpretive personnel. A 5-day Visitor Service Conference in October 1953 at Shenandoah National Park conducted on a servicewide basis produced plans for improved training methods and aids. Key interpretive personnel of Region 3 attended a 4-day training course at Grand Canyon National Park in March 1954 and spent an additional day of joint training with protective personnel. At Yosemite National Park, personnel from the Pacific coast areas and the California State Parks division worked out procedures for effective area-level training at a 5-day area-level course.

Two in-service training booklets, Talks, and Conducted Trips, were published during the year and 2 other publications were nearing completion. Volume 25 of the Administrative Manual, Information and Interpretation in the Field, was revised in a streamlined edition for easier use.

Accelerated research.—Plans were developed for a comprehensive 2-year cooperative geological research program at Cape Hatteras National Seashore. Field work will start in the late summer of 1954 and continue through the 1956 field season. The Institute of Coastal Studies of the University of Louisiana and the Geological Survey are cooperating in this project. The survey was made possible through a private donation of \$25,000 to the Service for the purpose.

A geological, biological and archeological study of Katmai National Monument in Alaska, initiated in June 1953, was continuing into the 1955 fiscal year. Cooperators in this project included the Office of Naval Research, the Arctic Institute of North America, the United States Public Health Service, and the Geological Survey with logistic support from the Army and Air Force. When the second and somewhat limited phase began in June 1954, participants included the Geological Survey, Public Health Service, the Department of Agriculture and the University of Alaska with the Army and Air Force again providing logistic support.

The Geological Survey made important contributions to geological research in other Service areas including geologic mapping in Great Smoky Mountains National Park, Carlsbad Caverns National Park and Mesa Verde National Park. After these were completed, a study of the geology of Jackson Hole in Grand Teton National Park was initiated, and negotiations were under way for a general geological study of Yellowstone National Park.

Wildlife studies.—Biological studies were undertaken in Katmai on the caribou and Dall sheep range and population problems; on sheep and wolf relationships in Mount McKinley National Park; and elk herds in Northern Yellowstone, Jackson Hole, Rocky Mountain, and Olympic. At Yellowstone, 207 antelope were trapped for live shipment; 1

son were destroyed, with carcasses distributed to Indian tribes; and approximately 1,050 elk were removed, falling far short of the desired reduction of 5,600. Reduction of the Jackson Hole elk herd by licensed hunters produced a kill of only 109 elk inside Grand Teton National Park.

Cooperating societies.—Three new natural history associations were authorized, at Lake Mead, Great Smoky Mountains, and Death Valley. There are now 21 cooperating societies in scenic-scientific areas. Publications sales by the associations increased to approximately 175,000 from approximately \$135,000 last year. There were 12 new titles published, and 51 additional titles revised or rerun. Equipment, materials, and services valued at almost \$25,000 were contributed to the Service.

HISTORY AND ARCHEOLOGY

Visitors to the 122 historical and archeological areas of the National Park System totaled 18,325,161 during the calendar year 1953. Nearly 11,000,000 of these received guidance and help from Service personnel in the 80 areas where such contacts are recorded.

Audiovisual aids.—To supplement personal interpretive services, the year saw increasing use of audiovisual aids of various kinds. The most outstanding automatic synchronized tape-and-slide presentation installed during the year was Shiloh—Portrait of a Battle, a 17-minute account of the Battle of Shiloh, with musical background, offered at Shiloh National Military Park. A 20-minute recorded talk at the Gettysburg Cyclorama; a tape recorded talk given on the Statue of Liberty boat; and a tape recording with filmstrip, prepared by the staff of Independence National Historical Park in cooperation with the University of Pennsylvania Graduate School of Education, were some of the other interesting accomplishments in this important field.

Self-guiding trails.—A self-guiding tour route, supplemented by a self-guidance leaflet, was placed in use for the Independence Hall group of buildings at Independence National Historical Park, its use directed primarily to school groups. Use of the technique of self-guidance was extended to the main ruins at Bandelier, Tumacacori, and Navajo National Monuments, and at the Pioneer Farmstead area of Great Smoky Mountains National Park.

Donations.—In addition to the General Federation of Women's Clubs donation of more than \$209,000, and the gift of the Claud E. Fuller arms collection, mentioned earlier, the Service obtained also fine examples of 16th century arms and armor through two generous donations. Funds given by Representative Charles E. Bennett of Florida were used to purchase some excellent pieces of the type illus-

trated in 1,564 drawings of Fort Caroline by Le Moigne; and two very fine suits of armor were donated by Mr. C. O. V. Keinbusch of New York for use in the armory planned at San Juan National Historic Site. Two Fort Sumter flags, hauled down when the fort was evacuated in 1861 and raised there again when it was reoccupied in 1865, given by the Department of the Army, are to be placed at the fort; the flag which draped Lincoln's casket, also presented by the Army, will be displayed at the Lincoln Museum.

Restoration, stabilization, and rehabilitation.—The most outstanding restoration of the year was at Fort Necessity, scene of Washington's first battle. There, archeological investigation had disclosed remains of the original stockade posts still in place. This discovery settled a century-old controversy as to the original shape of the fort.

The historic stables at Hampton National Historic Site are being rehabilitated with donated funds. One is to be a period stable; the other will display period carriages and exhibits relating to the early life at Hampton. To this end, a fine early 19th century carriage is being restored, also with donated funds.

Assistance in safeguarding our historic heritage.—The public interest in historical conservation work continued to mount. During the year, requests for the preservation of places of historical importance were received from 119 individuals and organizations, and involved 69 different areas. Of this large total, 6 proposals were handled on behalf of the President; 50 involving 30 historic areas on behalf of Members of Congress; and 47 requests involving 33 areas were studied and considered on behalf of individuals or patriotic organizations. The already large number of bills introduced into the Congress to promote the preservation of historic places or to establish memorials, 10 new bills were introduced relating to 25 areas or historical subjects. In addition, six bills were introduced relating to matters that pertained to established areas in the National Park System.

Jamestown-Williamsburg-Yorktown Celebration Commission established.—Senate Joint Resolution No. 62, approved by the President on August 13, 1953, provided for the establishment of the Jamestown-Williamsburg-Yorktown Celebration Commission to be composed of 11 members. This Commission will develop plans for the celebration, in 1957, of the 350th anniversary of the founding of the first permanent English settlement in America at Jamestown in 1607, the flowering of Colonial Virginia culture and statesmanship at Williamsburg on the eve of and during the Revolution, and the final winning of American independence at Yorktown on October 19, 1781. Toward this end, the Federal Commission, the establishment of which was completed on April 10, will cooperate with and assist the Virginia 350th Anniversary Commission established by the State of Virginia.

Historic preservation in time of armed conflict.—As great cultural treasures are peculiarly vulnerable in time of war under modern conditions of warfare, the Service joined with the Department of Defense, the National Archives, Library of Congress, Smithsonian Institution, and National Gallery of Art in assisting the Department of State in the preparation of the position to be taken by the Government of the United States on a proposed International Convention for the Protection of Cultural Property in the Event of Armed Conflict, the subject of an international conference at The Hague, Netherlands, April 21 to May 14, 1954. A United States Delegation was sent to The Hague conference and it was found possible to sign the Convention on behalf of the United States. Fifty-four nations were represented at the conference. Thirty-six nations, including Russia, signed the convention.

The treaty, to be ratified by the United States Senate before it becomes law in this country, should give an additional measure of protection to historic sites, buildings, and museum objects in time of armed conflict as compared with the older rules of international warfare based on The Hague Agreements of 1899 and 1907.

Archeological field studies.—Outstanding discoveries in the field of archeology were made in the areas of the National Park System. At Death Valley National Monument, surveys and test excavations by the University of Southern California have uncovered a range of sites dating from beach occupation of Pleistocene Lake Manly to recent sites with historic contact material. At Aztec Ruins National Monument, excavation of the Hubbard Mound disclosed an unusual round building about 60 feet in diameter which consisted of a kiva—or ceremonial chamber—surrounded by two concentric rings of rooms. Evidence of earlier structures was found underneath the circular building.

SALVAGE OPERATIONS

River basin archeology.—The Service continued to cooperate in the interagency Archeological Salvage program in conjunction with the Smithsonian Institution and other Federal and State agencies, including universities. At Garrison Reservoir, N. Dak., rising waters in the spring of 1954 so threatened the old site of Fort Berthold that the Corps of Engineers made every effort to divert the rising waters in order to allow the archeologists as much time as possible to salvage these remains. Under contract with the Park Service, the North Dakota State Historical Society and the Smithsonian Institution each sent parties in the field at the earliest possible date. The archeologists uncovered the remains of the earliest fort at this site, as well as later structures. Photographs and maps will help supplement the artifacts uncovered and give a permanent record of this important military post long after its location has disappeared under water.

At Fort Randall Reservoir, two field parties of Smithsonian scientists frantically gathered material and test excavated ancient Indian sites—often with the rising waters lapping around their feet. A non-operating institution, the University of Kansas, also excavated several sites in the Fort Randall area. In the Oahe Reservoir, the University of South Dakota carried on archeological salvage operations, uncovering material which helps to tell the story of the early Mandan and Arikara Tribes along the Missouri River.

In the Buford Reservoir, Georgia, one site yielded material which could be dated by the new radio-carbon method developed by Dr. Libby at the University of Chicago. This material indicated that the area had been inhabited by early Indians some time during the period 3,000 B. C. to the year A. D. 1.

In the Table Rock Reservoir area of Missouri, the University of Missouri continued its archeological salvage operations. It is the area which possibly contains the last unspoiled remains of the Ozark Bluffdwellers. Because of the excellent preservation afforded by the dry caves, many perishable artifacts of wood, fabric, and basketry have been recovered.

MUSEUM ACTIVITIES

Several new museums were opened and many additional exhibit units were completed in the course of the year. The Service's museum laboratory installed a series of new exhibits for the small museums at Appomattox Court House National Historical Park, Mammoth Cave National Park, and Cape Hatteras National Seashore. At Fort Necessity National Battlefield Site, new exhibits were placed in the reconstructed storehouse and stockade, in time for the 200th anniversary celebration on July 3 and 4, 1954. The fine new museum wing at Chickamauga and Chattanooga National Military Park headquarters was completed. New or revised exhibit panels or displays were prepared and installed in the existing museums at Jamestown, King Mountain, Antietam, Vicksburg, Fredericksburg, Fort Raleigh, Whittemore, Castillo de San Marcos, Natches Trace, Homestead, and George Washington Carver; and museum laboratory technicians were working on museums at Jefferson National Expansion Memorial and the San Juan National Historic Site.

Electric orientation maps.—Two such maps were completed and installed at Fredericksburg and Shiloh National Military Parks, and another was planned for Fort McHenry National Monument. General improvements of museum exhibits were completed at a number of other areas. In connection with the 50th anniversary of man's first flight, in December 1953, the Service opened to the public the recon-

ucted and refurnished hangar and quarters used in 1903 by the Wright Brothers in their experiments at Kill Devil Hills, N. C.

New branch laboratory.—A new specialized branch preservation laboratory was placed in operation at Gila Pueblo, headquarters of Southwestern National Monuments. Its function is to clean, repair, number, file and catalog pottery specimens of scientific interest from Southwestern park and monument collections.

The Museum Branch designed, constructed and installed exhibits in a new State park museum at Marksville, La., by request of the State. One duplicate dioramas of airborne support for a beach assault were completed for the Marine Corps.

PUBLICATIONS

Despite the great increase in number of visitors to the areas administered by the National Park Service, the amount available for the printing of informational publications has remained at \$96,500 a year for the past 4 years. The result has been to limit the quantities available for distribution to park visitors as well as to curtail the introduction of new items of sales literature.

Of the so-called free literature, 8,045,000 pieces were ordered during the year, involving the issuance of 98 requisitions. Requisitions were also issued for three new items in the slowly growing historical handbook series—Fort Necessity, Fort Laramie, and Vicksburg; for natural history handbooks for Rocky Mountain National Park and Badlands National Monument; and for Transplanting Trees and Other Woody Plants, a slightly revised item in the tree preservation series which will have a much improved format.

The enthusiastic reception accorded the Olympic National History Handbook, first item in this new series, required a second printing only months after its appearance.

Eastern and Western United States maps, each showing the areas administered by the Service and with essential information about each area on the reverse side, were sent to the printers. These will be used mainly to answer inquiries, and will greatly simplify the process in the Washington office.

The handling of inquiries.—Through the adoption of a thoroughly streamlined processing procedure near the end of the fiscal year 1953, handling of the flood of inquiries and requests for publications has been kept reasonably current for the first time in many years.

Cooperating society publications.—Because of the Service's limited printing funds, officially designated cooperating societies and associations have come to play an increasingly important part in the production of needed publications since the war; in that way, they have per-

formed an invaluable service. In connection with our effort to raise the quality of these publications and those issued by the Service, we have been fortunate in obtaining the advisory services of Mr. Sidi Jacobs, in charge of production for Alfred A. Knopf, Inc.

PROTECTING THE PARK FORESTS

Through vigilant fire-control operations and improved protection of the park forests, the Service's fire-prevention record was a creditable one in the past year. The intensive and consistent training courses for forestry personnel again proved worthwhile in preventing tremendous fire losses in several park areas. Hazardous fire weather conditions generally followed the pattern of the 1952 calendar year, with critical periods in the East exceeding those of the previous two decades.

Significantly, more lightning fires were reported than during any previous year on record. Although the number of 487 fires and 14,800 acres burned in Service-administered areas exceeded those of last year, the total burned area was less than the preceding 10-year average. Severe lightning storms caused 28 fires in Yellowstone National Park and 31 in Yosemite National Park, and imposed heavy additional responsibilities on park personnel during periods of heavy visitor use. With the contributory help of neighboring protection agencies and experienced Indian fire crews flown in from Southwestern Indian reservations, the situations were all well handled.

Tree disease control.—White pine blister rust continued, as last year, to be the tree disease of major concern in park areas. The control program under way in 13 areas was nearing completion, with 75 percent of the control area requiring only infrequent examination. The control of dwarfmistletoe in the ponderosa pine forests of Bryce Canyon National Park, the second project of this kind undertaken in a national park, was successfully completed. Oak wilt, a deadly disease threatening the hardwood forest cover of the East, was found in a small area of Shenandoah National Park and control work was undertaken immediately. Control work continued on a similar infection in Effigy Mounds National Monument.

Forest insects.—The epidemic upsurge of several forest insects required expanding control programs throughout the country. Damaging infestations developed within several national park areas, requiring the close attention of park foresters. With the help of cooperating entomologists in appraising the situations, control programs were introduced in 5 of the 8 areas where significant epidemic

surred or threatened. Included were control of lodgepole pine needle borer and mountain pine beetle in lodgepole pine, Yosemite National Park; Jeffrey pine beetle in Jeffrey pine, Lassen Volcanic National Park; Black Hills beetle in ponderosa pine, Bryce Canyon National Park; and southern pine beetle in pitch pine, Great Smoky Mountains National Park. Of special interest was the successful airdrop of supplies and equipment to a newly established mountain pine beetle-control camp at an elevation of 10,000 feet in Yosemite National Park. In other areas, maintenance control of insect attacks continued 16 projects and were successful in keeping tree losses at a minimum.

Grazing.—Despite increasing pressures to open new areas for live-stock grazing, reduction of grazing within the scenic and scientific park areas has been relatively successful in the past decade. The practice has been eliminated in 11 western areas that reported grazing in 1943. There has been an overall decrease of 43 percent within all western areas, and a reduction of 36 percent in servicewide grazing during that period.

CHANGES IN THE NATIONAL PARK SYSTEM

Fort Vancouver National Monument established.—Secretary McCay signed an order on June 30 which finally established Fort Vancouver National Monument in Washington, authorized by Congress in 1948. The order was to become effective on publication in the Federal Register on July 9. Some 60 acres of federally owned lands were transferred to the Department through the General Services Administration for the monument site. Fort Vancouver played a significant role in the settlement and development of the Pacific Northwest. From 1825 to 1846, it was western headquarters for the Hudson's Bay Co., and the center of economic, political, social and cultural life in the Oregon country. In 1849, it became the first United States military reservation in the area. The monument site adjoins Vancouver Barracks, an active Army post.

Contemplated additions.—Legislation enacted by the 83d Congress authorizing establishment of Fort Union National Memorial in New Mexico was on the President's desk awaiting his signature at the end of the fiscal year. The old fort, founded in 1851 as a protector for travelers over the Sante Fe Trail and against plundering Indians, played an important part in establishing United States control in the Southwest. Its impressive ruins are still standing. A bill to authorize the City of Refuge, Territory of Hawaii, which passed the House of Representatives in the 2d session of the 83d Congress, was still in the Senate committee at the end of the fiscal year.

LANDS AND AREA PROJECTS

Land acquisition.—Notable progress was made in the Service's long range program of acquiring non-Federal lands within approved park boundaries. Some 92,750 acres were brought into the National Park System by purchase, exchange or donation or were about to be acquired at the end of the fiscal year.

By a secretarial order of March 12, Everglades National Park boundaries were extended by approximately 271,000 acres, which were within the maximum boundaries authorized by the act of May 30, 1937. The extension, a major part of that required to complete the park, includes some 30,000 acres with mineral rights purchased by the United States in 1951 with \$97,000 donated by the State of Florida; 60,000 acres of Florida-owned land, expected to be transferred soon to the Federal Government; 10,000 acres donated to Florida by the Collings Corp., and now in trust awaiting transfer to the United States; and 171,000 acres of privately owned land. Part of the famed Ten Thousand Islands area lies within the extension. About \$300,000 of the \$2,000,000 donated by the State of Florida for land acquisition remains for purchases in the extension. During the year, two adjoining properties of about 18 acres on Key Largo, including a residence and dock, were acquired and are being used as a ranger station for the Florida Bay district of the park. In acquiring lands as the basis for Everglades Park it has taken some years to settle complicated court cases and to wind up negotiations and settlement. This has been done within the fund donated for the purpose by Florida, and with but one single appeal beyond the original court of jurisdiction.

Important steps were taken toward the fulfillment of the Cape Hatteras National Seashore Recreational Area project. About 2,600 acres of land was purchased with \$180,000 of the \$1,236,000 donated in 1951, half by the Avalon and Old Dominion Corps., and half by the State of North Carolina, for establishment of the area. These lands are on Hatteras and Bodie Islands and include the so-called Gooseville Game Club property, a favorite haunt of migratory waterfowl. Additional tracts on the two islands, totaling 3,000 acres, are being acquired by State condemnation. Also, the Service has options involving some 5,000 more acres to cost \$40,000. By the end of the fiscal year, 23,000 of the 28,500 acres scheduled for inclusion in the project had been acquired or were under option for acquisition.

The early establishment of Cumberland Gap Historical Park as a unit of the National Park System was anticipated; only the closing of certain streets in Middleboro, Ky., was holding it up. The States of Kentucky, Tennessee, and Virginia have acquired some 20,000 acres of land at a cost of about \$1,500,000 in the past 10 years, to be deeded to the Federal Government for the project.

Negotiations for the majority of tracts needed for Independence National Historical Park were well underway to settlement. Virtually all of the properties within the project are expected to be acquired by 1955, with the exception of the Irvin Building, which is not at present proposed for acquisition. Obligations to date on completed purchases, contracts to purchase, and for condemnation awards total approximately \$5,650,000 of the \$7,700,000 appropriated for acquisition of properties necessary to establish the area.

The State of Maryland was still in the process of acquiring some 100 acres, chiefly of mountainous terrain, as its portion of the Harpers Ferry National Monument project. The State had previously appropriated \$40,000 for the purpose. In 1953, the State of West Virginia transferred some 500 acres of land and scenic easements to the Federal government, including a portion of the old historic section of the town of Harpers Ferry.

Exchanges, donations, and purchases.—A highlight of the year was the virtual completion of exchanges to secure Federal ownership of lands heretofore held by the State of Montana in Glacier National Park. Involved is the exchange of about 200,000 acres of public domain grazing land in eastern Montana for about 9,350 acres of timber land in the park. The value of each is approximately \$800,000. On the same equal-value exchange basis, the Service acquired a total of about 1,200 acres in Glacier, Lassen Volcanic, and Olympic National Parks, Gettysburg and Petersburg National Military Parks, Theodore Roosevelt National Memorial Park, and Joshua Tree National Monument. Pending exchanges involve several thousand acres in the Theodore Roosevelt and Joshua Tree areas, and the Service proposes to exchange some 6,700 acres of excess federally owned lands in Queets Corridor and Ocean Strip, adjacent to Olympic National Park, for privately owned lands in western national parks.

Donations included 430 acres of land for Acadia National Park by John D. Rockefeller, Jr.; 60 acres for the Home of Franklin D. Roosevelt Historic Site by the Franklin D. Roosevelt estate; 2 acres for Antietam National Battlefield Site by the Washington County, Md., Historical Society, and 2.12 acres for Hampton Historic Site, purchased with funds donated by the Avalon Foundation. Other lands acquired by donation include: 270 acres for Grand Teton National Park from the Jackson Hole Preserve, Inc.; 37 acres for Manassas National Battlefield Park from the State of New York; a half-acre parcel of land for Fredericksburg and Spotsylvania County National Military Park from the Confederate Memorial Literary Society; and 95 acres in fee and 318 acres of scenic easements for Natchez Trace Parkway from the State of Mississippi.

In addition to the above acquisitions, the Service purchased or contracted to purchase approximately 2,100 acres of important privately owned properties in Glacier, Great Smoky Mountains, Kings Canyon, Lassen Volcanic, Rocky Mountain, Yosemite, and Zion National Parks, in Gettysburg National Military Park, and in Colorado's Glacier Bay, and Sitka National Monuments. About \$300,000 is involved in these purchases.

Special and defense uses of park lands.—At the end of the year approximately 1,600 special-use permits and 50 national-defense-use permits were in force in areas of the National Park System. The special-use permits covered mainly small parcels of land being farmed to maintain historical and rural scenes, or are for access facilities from private lands to park roads, and for utility lines. Of the defense-use permits, the majority were for short-term training purposes.

The Atomic Energy Commission continued its reconnaissance surveys for strategic minerals in park areas. It completed a report on Fossil Cycad National Monument disclosing possible commercial ore bodies within the monument boundaries, and recommended a more thorough investigation for a proper evaluation of potentialities in the area.

SOLVING WATER PROBLEMS

Water resources and rights.—In full compliance with individual State laws, progress continued in the complicated but important acquisition of essential water rights in park areas. These are necessary for adequate servicing and protection of the areas and the millions of visitors. Since 1936, the Service has established 380 rights to the use of water in 47 national parks, monuments and recreation areas in the 13 Western States. About half are covered by decree of water laws; the remainder are in permit form. At the end of the year, there were 42 water right applications to file as a result of amended State water laws, or because of the probable construction of new water systems within the next few years.

During the year, the Service inventoried the 156 Federal and 45 private water rights in Grand Teton National Park and was progressing with the work of defining Federal and private responsibilities for maintenance and operation of the water systems. In Death Valley National Monument, Federal acquisition of three tracts of land and appurtenant water interests to eliminate conflicts with Federal water interests was nearing completion. Steps were initiated to prevent further conflicts with Federal water interests at Organ Pipe Cactus National Monument by those authorized to use the area for grazing purposes.

The Service continued cooperation with the Geological Survey, New Mexico State agencies, and the Carlsbad Irrigation District on important water resource matters. One was on measures to control the ground waters of the Black River extension of the critical Carlsbad ground water basin; another, to protect Federal rights to the use of rattlesnake Springs water for Carlsbad Caverns National Park. Cooperation was also continuing with the town of Tropic, Utah, in an attempt to find a more adequate water supply for the town without encroachment on Bryce Canyon National Park.

LAND AND PROPERTY DISPOSAL

Transfers of land and property to other agencies.—Increased emphasis was placed on the elimination of areas and area-units considered lacking in true national significance and that attract primarily local visitation or use. Some 4,660 acres were thus transferred to State and local bodies for inclusion in their park systems.

In May 1954, the President approved legislation abolishing Shoshone Caverns National Monument and authorizing transfer of the approximately 213 acres of land to the city of Cody, Wyo., for park purposes. Also, title to an 0.41-acre parcel of land in Morristown National Historical Park was conveyed to the city of Morristown for use.

Approximately 4,447 acres of the Catoctin Recreation Demonstration Area was transferred to the State of Maryland for its park system. In formal ceremonies on June 11, the director of the National Park Service presented the title to this property to Gov. Theodore R. McKeldin. The name "Catoctin Mountain Park" has been approved for the approximately 5,747 acres remaining in Federal ownership. Camp David, the mountain retreat of the President of the United States, and the two long-term camping establishments remain in the director of the park still being managed by the office of National Capital Parks.

Legislation authorizing the abolishment of Old Kasaan National Monument and transfer of the lands to the Forest Service was pending at the end of the year. Other proposals to abolish 6 national monuments and 1 national battlefield site and to transfer the lands to the respective States or to dispose of as surplus property were under discussion with the various congressional delegations and the States.

Real property disposal.—The Service continued its cooperation with the General Services Administration and other agencies in connection with the disposal of surplus Federal real-property under provisions of the Surplus Property Act of 1944, as amended. Eight applications for the acquisition of such lands by State and municipal agencies for

public park, recreation, and historic monument use were processed. These totaled approximately 325 acres and 4 buildings, and have turned about \$27,537 to the United States Treasury.

After lengthy negotiations, the 35-acre Hospital Cove area on Angel Island in San Francisco Bay, including a boat harbor and some buildings, was transferred to the State for use as a historic monument. Gov. Goodwin J. Knight accepted the deed on March 11, 1954. The California State Park Commission has filed an application for adjoining 140 acres for similar purposes upon termination of use by the Department of the Army.

As required in connection with surplus real property sales, deeds conveying title usually contain a provision that the recipient body will use the area for the purpose indicated over a certain period of years and report biennially on area management. As a result of a recommendation by the Secretary's management survey team, responsibility for enforcing such provisions was delegated to the Service by secretarial order of March 30. Previously, the Bureau of Land Management was the responsible agency.

COOPERATIVE ACTIVITIES

The Service continued its program of river basin studies with new emphasis on basinwide surveys. An important step was the completion of the Report on the Recreation Resources of the Rogue River Basin, Oreg., requested by the Secretary of the Interior in 1950. In addition, important and satisfying progress was made on the Arkansas-White-Red River Basin, and New York-New England region projects, and the Missouri River basinwide study. In the last of these inventories of existing and potential recreation areas were virtually completed. The pilot Research Report on Recreation Habits, Needs, and Desires of the People of the Niobrara River Basin, Nebr., was prepared by Iowa State College.

Work in the Columbia River Basin was limited to cooperation with the Bureau of Reclamation and other agencies, and the group camping survey of the project area conducted by Washington State College. The recreation survey of the Gunnison River drainage in Colorado continued with inventory work on national forests and Colorado Game and Fish Commission lands.

Recreation planning of areas.—Recreation planning of reservoir areas continued to be an important form of cooperation with the Bureau of Reclamation and the Corps of Engineers. In addition three reservoir management agreements were executed; the Service played an important part in the consummation of these. Four reservoir areas in Wyoming are being administered by the State under tem-

ary licenses granted by Reclamation during the year. In addition open agreements are nearing the final stages of negotiation. Little progress was made in the reservoir development phase of the river basin studies program. Congress did not act on the bill, S. 40, to authorize recreation development at reclamation reservoirs.

Seashore study.—Donated funds made it possible to launch a study to identify the major remaining opportunities to conserve natural shore or coastal areas on the Atlantic and gulf coasts. The study, conducted in close cooperation with the States, will require a year or more to complete. Full consideration is being given to areas valuable unique or rare plant and animal communities. Donated funds also largely supporting a comprehensive 2-year scientific study of Cape Hatteras National Seashore, under cooperative agreement with the Office of Naval Research and the University of Louisiana Institute of Coastal Studies.

Alaska recreation resources survey.—This study, begun in 1950, is incomplete except for final preparation and publication of some of the reports. The two volumes of part I of the overall report—Economic Aspects of Recreation in Alaska, and Analysis of Alaska Travel with Special Reference to Tourists—were published during the year.

As part of the survey, the Service undertook an investigation of the Nangakut-Firth River area in northeast Alaska in cooperation with the Office of Naval Research, which sponsored the project, the Geological Survey and the University of Pennsylvania. The report recommends protection of the area for research and appropriate wilderness creation. The Service also participated in and gave general direction to a cooperative study of the human and natural history of Katmai National Monument, which is being continued this summer.

Cooperation with the States.—The Service has continued to make available to the States a wide variety of advisory and consultative assistance in their park and recreation problems. In addition to many other services, such assistance was given on 193 occasions to 40 States. The Service study of the Illinois-Mississippi Canal in Illinois, undertaken for the State, recommended that the canal be transferred to the State for administration as a through recreational waterway.

Publications issued included State Park Statistics, 1953, and a leaflet, Public Recreation Areas in the Vicinity of Washington, D. C. A Digest of Laws Relating to State Parks and Recreation was prepared under contract.

WINTER USE OF WESTERN PARKS INCREASES

An upsurge in winter use of certain western national parks and public pressure for improvement of year-round facilities in others

was an important development of the year. In Yosemite National Park, a new winter-visitation record was set in its Badger Pass area. From December 19, 1953, to April 18, 1954, a total of 98,192 visitors were recorded as compared with 93,186 the previous year. Enlargement of the Badger Pass Ski Lodge and some slope improvement has been proposed.

At Hidden Valley ski area in Rocky Mountain National Park, 7,714 cars carrying 31,160 visitors were counted from mid-December 1953 to April 25, 1954. Of these, 7,714 were skiers. The Service has undertaken studies preparatory to improving skiing conditions at Hidden Valley. The director, however, has informed the Hidden Valley Development Committee that a permanent chair-lift ski tow would conflict with Service policy and was not being approved.

Winter activities, primarily skiing, continued in a limited degree at Sequoia, Mount Rainier, Lassen Volcanic and Olympic National Parks and to a lesser degree at Crater Lake National Park. Olympic, where the Hurricane Ridge Lodge has been completed, studies were expected to get under way soon for a proposed winter area at Hurricane Ridge. It was hoped that construction there could be finished coincidentally with completion of the Heart of the Highway which will lead to the area. A study for a minor winter development in the Manzanita Lake area of Lassen Volcanic National Park was completed during the year.

DEDICATIONS AND PAGEANTS

Perhaps the most interesting celebration to occur in a national historical area during the year was the dedication of the George Washington Carver National Monument as a memorial to the life and accomplishments of the famed Negro scientist. At the dedication ceremony in July 1953, the Secretary of the Interior and the director were speakers, joining the local community and its representatives in this important event.

Wright Brothers National Memorial was the scene of an elaborate 3-day celebration of the 50th anniversary of the first flight of a heavier-than-air machine. Almost every leader in the development of flight was present and participated in the ceremonies.

Community pageants were again presented in several of the historical areas during the summer season of 1953, including the Los Colony at Fort Raleigh National Historic Site, Sword of Gideon, drama of the American Revolution given at Kings Mountain National Military Park, and the Hiawatha Pageant offered at Pipestone National Monument.

PARKS IN AND NEAR THE NATION'S CAPITAL

The National Capital Parks comprise one unit of the National Park System. It administers a system of parks, monuments, memorials, and parkways in the Nation's Capital and sizable acreages outside metropolitan Washington. In these areas, the total of 6,043,386 visitors in 1953 showed an increase of 963,784 over 1952 when 5,079,602 were recorded.

Of significant importance was the progress on construction of the Baltimore-Washington Parkway and the transfer of certain lands to the State of Maryland, mentioned in more detail elsewhere; the reconstruction of Beach Drive, scheduled for completion in August 1954, and improvements to the House Where Lincoln Died and in the west wing of the White House. A contract was awarded for demolition of 42 wartime temporary buildings at Fort Washington, Md.; completion of this work will make the large riverfront portion of the 1-acre tract available for park purposes. The old fort, several historic houses, and representative examples of other seacoast defenses located in the area will be retained for exhibits.

Washington carillon.—The 49 permanent full-size bells of the Washington carillon, a gift of the people of the Netherlands to the people of the United States, were officially presented on May 5, 1954, at ceremonies at the temporary carillon site in West Potomac Park. Mr. L. G. Korstenhorst, chairman of the Second Chamber of the States General of the Netherlands and chairman of the Bells for America Committee, made the presentation. The Hon. Joseph W. Martin, Jr., Speaker of the House of Representatives, accepted the gift for the United States. Assistant Secretary of the Interior Orme Lewis was host and chairman for the event.

Ford's Theater.—The 83d Congress enacted legislation signed on May 28 directing a study and cost estimate on the restoration of the historic Ford's Theater as it was on April 14, 1865, the date President Lincoln was assassinated. The study, to be undertaken early in fiscal year 1955, will also include a cost estimate for reinstallation of the Ford collection of relics.

Dutch elm disease.—The Dutch elm disease, which threatens the elm tree population in the Nation's Capital, continues to worsen. Of 276 trees located in the District in fiscal 1954, 50 were on National Capital Parks property where control procedures were continued. Elimination of the disease will be possible only by adequate scouting and control procedures on a citywide basis and the Service continues to urge the District government to give this matter serious attention.

With accrued interest of \$952.94, a total of \$10,949.99 was added during the year. Authorized fund expenditures totaled \$3,500, used for appraisal of certain privately owned lands within Grand Teton National Park.

A future prospect.—It appeared likely at the end of the year another substantial gift would be received from John D. Rockefeller Jr. The 1955 appropriation bill, at the White House awaiting President's signature on June 30, contains a \$500,000 amount which will satisfy the proviso in Mr. Rockefeller's offer of \$500,000 for several land acquisitions when a like sum is received. A plan for a land acquisition program for use of the \$1,000,000 has been prepared in anticipation of this fund.

PERSONNEL MANAGEMENT

Personnel staffs were faced with a tremendous position classification workload during the year due to reorganization of the Service and other factors. Also, emphasis was placed on developing a forward-looking personnel management program through occupational studies, training courses and new training manuals.

Inservice transfers and promotions, especially in the field of supervision, were particularly numerous. A total of 657 position descriptions were prepared and the positions allocated by May. Of these, 181 were reorganization allocations. By the end of the year position classification work and related actions on the reorganization has been substantially completed for the Washington office and design and construction field offices. Again, as in 1953, the Whittier amendment required review of all existing positions which resulted in submission of 160 redescriptions.

Other important moves included a general study of superintendent positions, revision of park ranger class specifications, and preliminary work on two proposed new classification series of park specialist and park administration. In anticipation of legislative action whereby the Civil Service Commission would become the wage-fixing authority for the Federal Government per diem employees, a file on wage rates and wage-fixing practices in the Service's field areas was being compiled for use by the Commission.

Seasonal employee examinations.—In keeping with the Civil Service Commission requirements, promulgated during the year, that the Service recruit seasonal uniformed personnel through competitive examination, boards of examiners were established in each of the four regional offices. These boards handled the registers for seasonal rangers, ranger naturalists, ranger historians, and ranger archeologists. At the end of the fiscal year it was still too early to evaluate the results of the new procedure.

n consulting with Army engineers and the Tennessee Valley Authority in an effort to remedy the damage.

Blizzard traps motorists.—A severe blizzard on Trail Ridge Road, Rocky Mountain National Park, Colo., trapped 36 motorists for 12 hours on June 6. Park rangers and snow plows assisted the motorists in reaching safety.

Spectacular rookery displays.—A notable revival of several reproductive rookeries in Everglades National Park produced since 1940. Displays of wood ibis, white ibis, and egrets.

Our outstanding service to participate in the fifth departmental management training course in Washington, D. C., from September 1953 to the end of April 1954. After a 4-week orientation course, the trainees undertook on-the-job training assignments in the National Park Service and other offices of the Department.

Numerous other training courses, some of which are mentioned elsewhere, were held by technical units, regions, and areas to promote greater employee efficiency.

The Service's training officer was selected to attend the 53d session of the Federal Bureau of Investigation National Academy, March 22–April 11, a course which will enable him to increase the effectiveness of field-employee training in law enforcement procedures and techniques. Noteworthy accomplishments were the preparation and issuance of a Guide to Supervisory Development, a field-level supervisory training manual, and an Information Handbook, for field personnel having public-contact duties and for training seasonal employees. Both were being put to good use in the field.

THE ADVISORY BOARD

The Advisory Board on National Parks, Historic Sites, Buildings, and Monuments held two meetings during the year on Service matters and continued to give invaluable advice and assistance. On July 1, 1953, two new board members, Walter L. Huber of San Francisco, civil engineer and conservationist, and Harold S. Wagner, director-secretary of the Akron (Ohio) Metropolitan Park System, were appointed by the Secretary of the Interior. They replaced Dr. Ralph W. Chaney, professor of paleontology of the University of California, and Tom Wallace, editor emeritus of the Louisville (Ky.) Times, whose terms expired on June 30, 1953. Mr. Huber is an honorary vice president and former president of the Sierra Club of California. Mr. Wagner is a board member of the American Institute of Park Executives and a life board member and former president of the National Conference on State Parks.

With accrued interest of \$952.94, a total of \$10,949.99 was added during the year. Authorized fund expenditures totaled \$3,500, used for appraisal of certain privately owned lands within Grand Teton National Park.

A future prospect.—It appeared likely at the end of the year another substantial gift would be received from John D. Rockefeller Jr. The 1955 appropriation bill, at the White House awaiting President's signature on June 30, contains a \$500,000 amount which will satisfy the proviso in Mr. Rockefeller's offer of \$500,000 less the amount used for acquisitions when a like sum is received. The amount used for acquisitions when a like sum is received, continued along the same line. ~~soon~~ for use of the \$1,000,000 began, the entire sky aglow with bright orange-red smoke and fume clouds rose rapidly to 30,000 feet; the fire-pit and parent crater were boiling cauldrons.

The eruption subsided as quickly as it began. Within 8 hours, a highly spectacular phenomenon had simmered to irregular extrusion of spatter. By noon of June 4 activity ceased. The new 4,500 cubic-yard deposit of lava in Halemaumau raised the floor of the crater 20 feet—within 450 feet of the rim; 500,000 cubic yards of lava were deposited on the Kilauea Crater floor.

In the first 24 hours after it started, some 15,000 persons witnessed the eruption. Park personnel, assisted by Hawaii County police, stalled portable fences, roped off danger zones, and established a one-way traffic pattern. Many visitors watched the activity from Volcano House and Uwekahuna Overlook where views of the scene were particularly spectacular.

Mount Trident eruption.—Mount Trident, in Katmai National Monument, Alaska, continued through the 1953 summer season eruption which began in February 1953. The phenomenon was under observation by the field research team studying volcanic and seismic forces, plant and animal ecology, ethnology, and archeological remains in the monument.

Landslide creates new lake.—A large landslide in Stony Creek Canyon, Mount McKinley National Park, Alaska, in the summer of 1953 formed a dam in the creek bed, creating a lake above the slide, which is now a half-mile long. The slide was discovered on July 18, 1953, by an airplane pilot flying over the area. The cause is unknown, though the mountain face exposed shows that the material slid from a layer of permafrost, probably thawed by heavy rains and loosened by earthquakes active at the time.

River bank swallowed.—At Pittsburgh Landing, Shiloh Military Park, historic scene of General Grant's successful 1862 battle leading to the siege of Vicksburg, floodwaters of the Tennessee River in the Kentucky Lake section carried 20,000 cubic yards of river bank in the rushing waters in February 1954. Several large trees and 55 feet of the Pittsburgh Landing loop road went, too. Park officials have

in consulting with Army engineers and the Tennessee Valley Authority in an effort to remedy the damage.

Blizzard traps motorists.—A severe blizzard on Trail Ridge Road, Rocky Mountain National Park, Colo., trapped 36 motorists for 12 hours on June 6. Park rangers and snow plows assisted the motorists in reaching safety.

Spectacular rookery displays.—A notable revival of several recently inactive rookeries in Everglades National Park produced spectacular displays of wood ibis, white ibis, and egrets.

OF SIGNIFICANT INTEREST

Challenge of the Mountains.—The high mountains in the national parks continue to provide a strong lure to the rugged and fearless. Rocky Mountain National Park, 1,856 ascents of Longs Peak were recorded; of this number 111 climbed the peak's difficult east face.

On June 5, Earl Harvey, 20, of Gretna, Va., fell to his death while climbing the peak. New records in climbs and numbers of climbers were set in Grand Teton National Park. In Mount McKinley National Park, in the central Alaska wilderness, of the 11 persons in 3 parties attempting the difficult climb to the 20,300-foot summit of Mount McKinley—highest peak in continental North America, 6 were successful. One four-party group, led by Elton Thayer, reached the summit May 15 thereby establishing a new record of a first-time successful climb via the South Buttress route.

The success of the Thayer party ascent was dimmed by a fatal accident in descending when the four fell, slid, and tumbled more than 4,000 feet from the 13,800-foot Karstens Ridge. Thayer was killed instantly, and George Argus seriously injured. The other two, Leslie Eriek and Morton Wood, brought Argus to a safe place on Muldrow Glacier at 11,000 feet and walked out for help. Rescue was effected with the help of a civilian climbing group, members of the Arctic Doctrinaire Center at Big Delta, and the 74th Air Rescue Squadron from Ladd Air Force Base.

The Service continues its policy of requiring climbers to obtain permission from the superintendent before attempting the more hazardous ascents and to report upon return. It assumes no responsibility or liability for mountain-climbing accidents, though its employees are frequently subjected to serious hazards, and the Service to heavy expense, in rescue operations.

Park ranger killed by rocks.—Charles R. Scarborough, assistant chief ranger of Yosemite National Park, was struck by rocks falling from Clark's Point Cliff while on a pack trip to Merced Lake. He and his horse were killed instantly, marking the first death of a permanent ranger while on duty in Yosemite.

Visitor accident.—A serious accident occurred in Mount Rainier National Park March 17 when Miss Delores VanParys, 17, of Seattle, fell from the parapet above Narada Falls to which she had climbed. Slipping and falling 179 feet to the bottom of, and beyond, the falls, she was critically injured but it was reported later she would recover. Rescue was effected by rangers and Air Force personnel who happened to be at the scene.

Horse Roundup.—A unique method of enforcing grazing trespass regulations in Theodore Roosevelt National Memorial Park brought good results but some temporary confusion in the minds of park friends. Because certain stockmen ignored notices to remove their stock from the park, a horse roundup was conducted April 30–May 2. Widely publicized through efforts of the Greater North Dakota Association, the event was misinterpreted by some as a “wild horse” roundup and the Service was criticized for “removing wild horses from the park.” Large crowds gathered and the event attracted nationwide newspaper and photographic coverage. No wild horses were found.

Official honored.—Assistant Chief Naturalist H. Raymond Gregg of the Washington office was elected Fellow of the American Association for the Advancement of Science on June 2, 1954.

UNIVERSITY OF GEORGIA LIBRARIES



3 2108 04727 4850

